



# Software User Manual

PD800413

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## 1 INTRODUCTION

### 1.1 About this document

In this user manual the names of interface items (windows, (tab) pages, fields, and menus) are printed in *italic*, while user controls (keyboard keystrokes, mouse or trackball clicks, edit controls, check boxes and menu choices) are indicated in **bold print**.

Symbol	Definition
	An orange dot indicates a point of interest.
	A red exclamation mark indicates an important remark.

This **Tracxer** Code Reader Software user manual is installed in PDF on your computer upon installation of the **Tracxer** program.

### 1.2 About the system

The **Tracxer** program incorporates a flatbed scanner with a special cover on it and an image analysis program that runs on a PC (or laptop or notebook), which is connected to the scanner via a USB cable. The software reads and decodes the 2D codes on the bottoms of tubes that are placed in a storage rack. The read tube codes plus an optional 1D rack barcode (obtained from an external side barcode scanner) can be stored on a hard disk or sent to an optional host computer.

## 2 QUICK GUIDE


For operators of the **Tracxer** program who only need to know the daily operating procedures of the system this chapter shows the sequence of actions that is required to correctly start, use and stop the **Tracxer** program.


### 2.1 Start

- Switch on all systems. Please see also the 'Getting Started' manual.
- The **Tracxer** program will start automatically (if not log in to Windows and double click on the **Tracxer** icon to start the **Tracxer** program).
- Log in with your *name* and *password*.
- Click on **Scan & Export** to start scanning and decoding.

### 2.2 Stop

- Click on the **Close** button to exit the **Tracxer** program.
- Close down Windows (click on the **Start** button of Windows, select **Shut Down...**, etc.) After a while the computer will shut down.

 If you power down the PC while Windows is still running, vital parts of both software and hardware can be damaged!

 On rare occasions after closing down the **Tracxer** system the program will stay in memory. It will not be possible to start the program again. To solve this situation start the Task Manager (Right Mouse Click on the Windows Task Bar, select the **Task Manager**) and select the **Processes** tab. Select 'Tracxer.exe' in the first column. Click the **End Process** button and confirm.

## 3 PROGRAM INTERFACE

### 3.1 Users

The **Tracxer** program has various 'types' of users, each on his own user level. Each user has to log on to the software before he can control it on the level that has been allocated to his User Name and Password. This user level determines which functionality is accessible. Users on a higher level have more rights (and more responsibilities) than lower-level users. The bottom level is 'logged-off'.

The **Tracxer** program comes preinstalled with the following users and passwords:

- AdminNoPWD - (Administrator level)
- SuperNoPWD - (Supervisor level)

● If you leave the program unattended for longer than a pre-defined period of time, you may automatically be logged off.

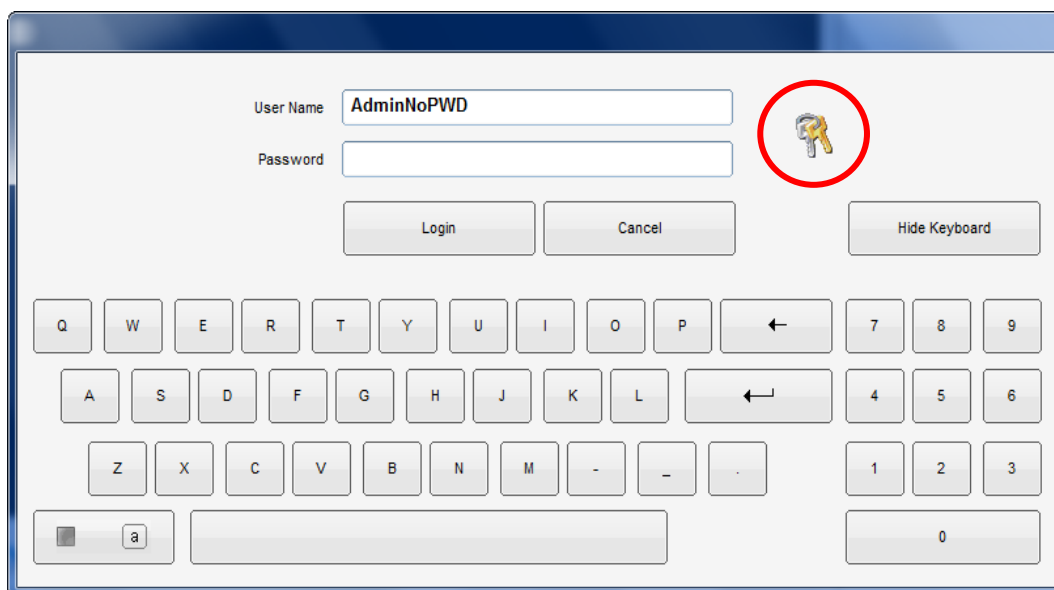
### 3.2 Controls

The numeric edit controls have more functionality than usual. When a control has focused, its value can be changed using the mouse wheel, the arrow keys and the bar below it. Also if you click and hold a control for two seconds a pop up appears in which you can change the value.

### 3.3 Log on – Log off

Before you can use the **Tracxer** program to its full extent on your User Level, you will need to log on to it. Click the **Log on** button in the *Main Toolbar* or press the function key F2 on the keyboard to get the *Login pop-up* menu.

! Please pay attention to using the correct (lower or upper) case for the characters you type!



When all users, including the supplier's service desk, are unable to login because they forgot their user names and passwords, and remote support is not possible, Micronic can supply a temporary login password code. You must click the *Keys Icon* (see red circle in the image above) and forward the shown code to the service desk.

Micronic will generate a code (for a specific user level) that the customer can use as a password to login to the **Tracxer** program. Once the user is logged in he can make new users at the desired user levels. The generated password code expires at 12:00 pm of the day it was generated.

### 3.4 Toolbar



Always visible is the main toolbar. We use this toolbar to switch between pages of the program.

When the **Tracxer** program is in detection mode it awaits products. Every product that passes the scanner from now on (until detection mode is stopped) will be checked by the **Tracxer** program. The images that are acquired from the products are shown in the *Image Display* section on the *Home Page*.

All the different pages will be discussed in the following chapters.

- *Home*; shows the most important statistics, status information and images from production.
- *Scanner*; decoding and scanner settings.
- *Advanced*; application settings, i.e. barcode devices, output files and user management.
- *Log off/Log on*; users can log on or log off.
- *Help*; shows the **Tracxer** user manual.

### 3.5 Status Bar



The status bar shows information about the program. From left to right:

- The last warning or error message (also see the *System-History* page).
- Location Name, here "LAB001".
- Current user and user level.
- Clock showing the current time.

### 3.6 Side Bars

On every page there is a side bar on the left of the screen. Use these side bars to select subpages. These subpages will be discussed in the concerning chapters. We will also refer to them as 'pages'.

### 3.7 On-the-fly Changes of Settings

In the **Tracxer** program it is possible to change most settings while in detection mode. Changing settings on *Scanner* or *Advanced Pages* will not interfere with the current production until **Apply New Settings** has been clicked. Buttons on the *Home Page* have an immediate effect on production.

### 3.8 Apply New Settings and Undo Changes

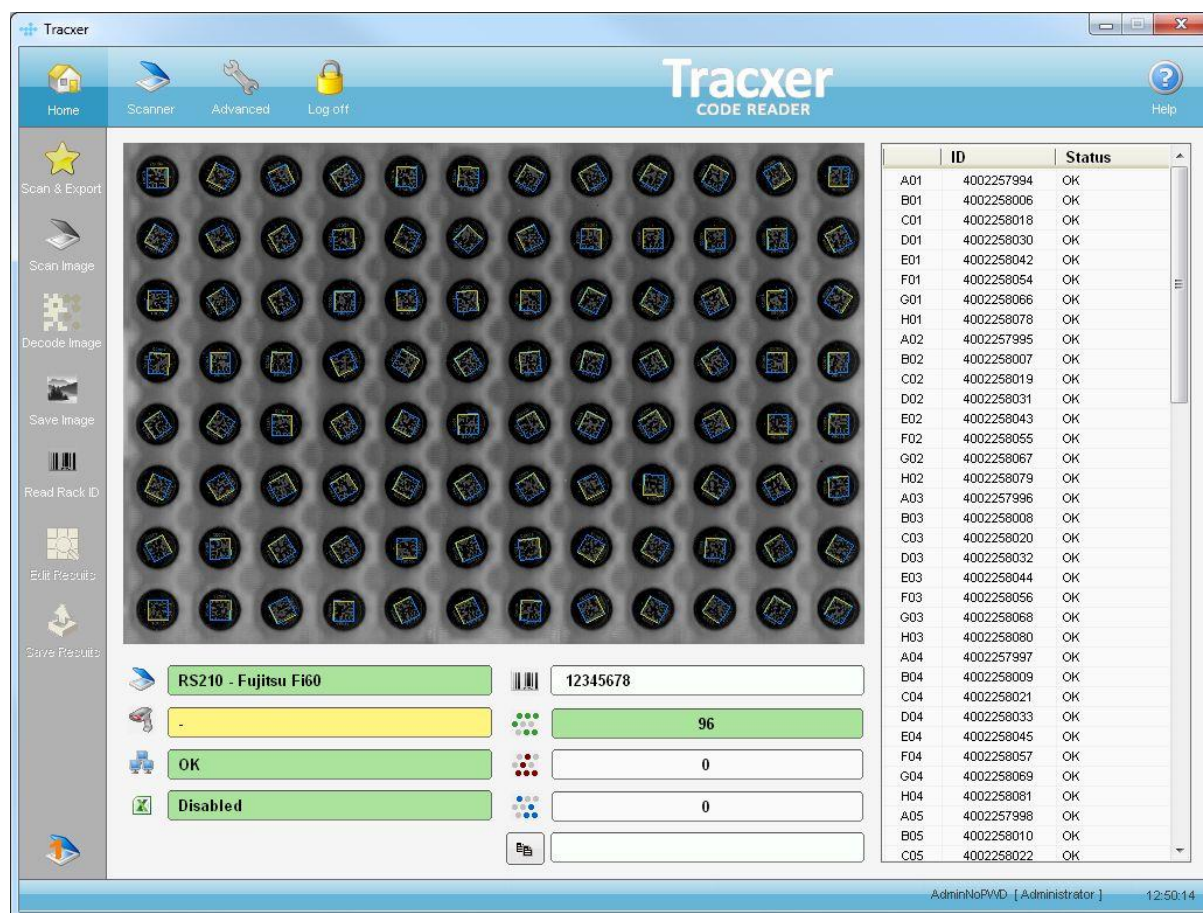
After making any changes you need to click the **Apply New Settings** button to use the new settings in production, or click on the **Undo Changes** button to refrain from using the new settings and restore the 'saved' values.

! When you change a parameter, its new value is tested immediately on the current image: you will see the effect in the *Image Display*. It will not be used for production yet. Only after you click the **Apply New Settings** button, all new parameter settings are taken 'into production'. So, if you leave the *Scanner Pages* without applying, your new settings are not used in production.

! As soon as you click **Apply New Settings**, the **Undo Changes** button has no effect anymore, because applying overwrites the 'saved' settings.

## 4 HOME PAGE

On the *Home Page* we see a side bar, a display for the scanned images, and a list with the last decoded results and finally there is an area with status information of several devices or controls.



There are 7 options in the sidebar:

- *Scan & Export*; this option is a combination of the other buttons. It runs through the options sequentially: Scan an Image, decode the image, read the rack ID and save Results.
- *Scan Image*; scans a new image.
- *Decode Image*; decodes the last acquired image.
- *Save Image*; saves the current image. A pop up will be presented to enter the filename.
- *Read Rack ID*; reads the Rack ID using either a serial device or a keyboard wedge.
- *Edit Results*; gives the option to edit the results of a single tube manually.
- *Save Results*; saves the decoding results of the scan to an output file and/or automation.

! Please notice that the *Image Display* will be black until the production is started and the first image has been acquired by the scanner.

### 4.1 Status Information

In the Status area we have four fields showing important information about the system devices:






- *Scanner*, shows which scanner is currently being used
- *Barcode Reader*, if a serial barcode scanner is connected its status will be shown here
- *Remote control*, shows if a remote control client is connected



-  *Automation*, shows which type of automation has been selected and if the process works correctly

When a status is green the device is working correctly. When a field is yellow the status is unknown but the application can continue working. When the status is red there is a problem which needs to be fixed in order for the device to continue working properly.

Next to the devices are the decode results shown:

-  *Tray ID*, shows the received or entered code of the tube rack
-  *The number of tubes read correctly*
-  *The number of tubes which could not be read*
-  *The number of tubes which were detected empty*
-  *Single tube ID (when single tube reading is enabled)*

## 5 SCANNER PAGE

Before you can start adjusting the settings make sure an image of a correct product is available in the *Image Display*. When adjusting or testing certain parameters it can be helpful to have an image of a product with one or more defects available.

In the *Side Bar* on the *Scanner Page* you'll find the following options:

- *General* Settings for the rack and rack and code options.
- *TraXis* Settings for TraXis decoding.
- *Datamatrix* Settings for Datamatrix decoding.
- *Source* Settings for Scanner selection and scanner area.

Click on *Apply new Settings* button to use the new settings in production.

### 5.1 Display and Image Controls

This paragraph is valid for all *Scanner Pages*.

On many pages an image is visible. On the *Home Page* these are images from production (depending on the display settings). On the other pages the images come from the review set of images or from disk. According to the review settings images from production are copied to the review set. A mouse right click in the image will give you some options to manipulate the display.



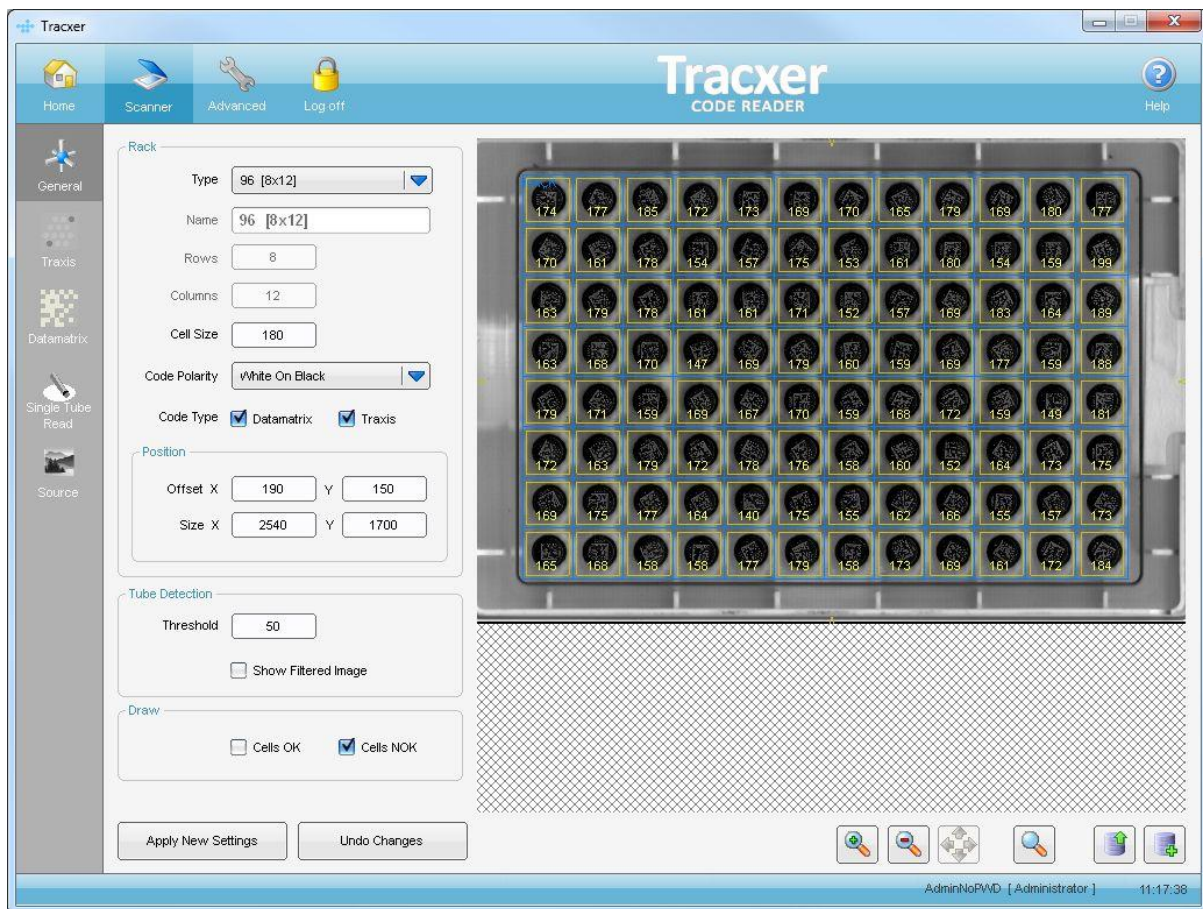
The buttons under the image display on the scanner pages do, from left to right, the following:

- **Zoom In:** Zoom in the *Image Display*. Clicking the left mouse button increases the zoom factor. A single right mouse button or a left mouse click outside the display, exits the zoom in tool. To set a permanent zoom factor you can right click in the *Image Display*.
- **Zoom out:** Zoom out the *Image Display*.
- **Scroll:** Scrolls the *Image Display* when zoomed in by moving the cursor to the sides of the *Image Display*.
- **Magnifier Zoom:** Start and stop a magnifier zoom. Use the mouse wheel to control the zoom factor. Move the cursor to the place you wish to enlarge. A single left mouse click outside the display will also exit the tool.
- **Open Image:** Load an image and run a measurement.
- **Save Image:** Save an image for later use.



## 5.2 General

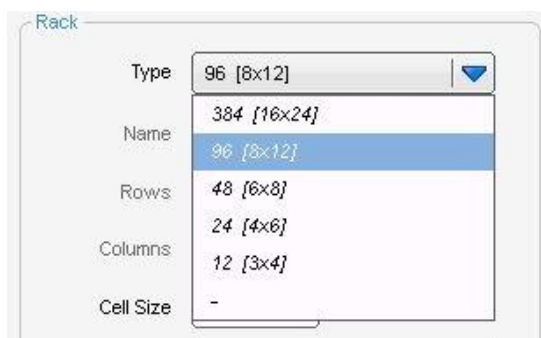
This section gives the possibility to change rack specific settings, which will be used for reading.



### 5.2.1 Rack Types

The rack type can be selected with the type combobox. The first 5 types are predefined. They are the 384, 96, 48, 24 and 12 types. These five cannot be removed. The parameter of these type can be altered.

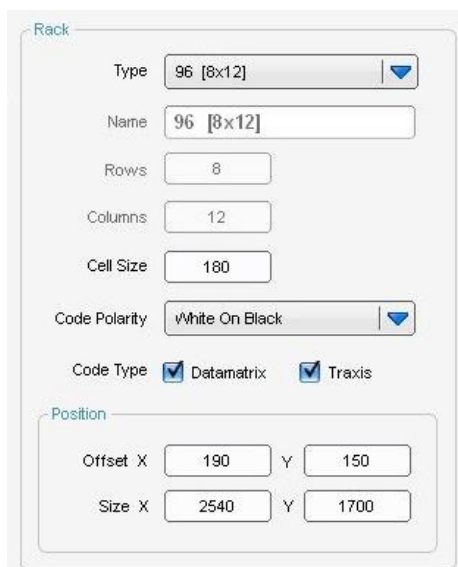
In the picture below also two user defined types are generated. Making a new type is done by selecting the last type, the dash. Once selected, the name can be edited and after applying the settings, the new type is available.



Each type has a number of parameters which can be changed, and will be stored along with the type:

- **Name** : How to relate to the type
- **Rows** : The number of cells vertically

- **Columns** : The number of cells horizontally
- **Cell Size** : The effective size of the scan area, which is being used for decoding. This size is displayed in the *Image Display* as yellow squares.
- **Code Polarity** : Is the code applied black on white, white on black or can both types be found? According to this setting, the decoding will use one fixed type or look for both types.
- **Code Type** : Datamatrix and TraXis can be decoded using the [Tracxer](#) program. Deselecting a code type here will disable the decoding of this type in production. This will reduce the overall decoding time of a rack.
- **Rack Position** : The position of the decoding area can be set here. The position is displayed in the *Image Display* as a blue matrix.



**Rack**

Type: 96 [8x12]

Name: 96 [8x12]

Rows: 8

Columns: 12

Cell Size: 180

Code Polarity: White On Black

Code Type: ☒ Datamatrix ☒ TraXis

**Position**

Offset X: 190 Y: 150

Size X: 2540 Y: 1700

### 5.2.2 Tube Detection

Using the threshold setting a limit can be set so the empty tube can be detected correctly.

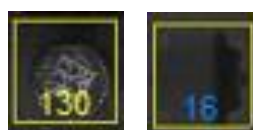
In the *Image Display* the current value can be seen for each tube. When the current value is above the Threshold the text will be displayed in yellow, if it is lower the text will be blue.



**Tube Detection**

Threshold: 50

☐ Show Filtered Image



### 5.2.3 Options

An overlay can be displayed in the *Image Display* during production which draws a circle around each decoded tube.

- Draw Cells OK: draws a green circle around the tubes which have been decoded successfully.
- Draw Cells NOK: draws a red or orange circle around the tubes which did not decode properly.

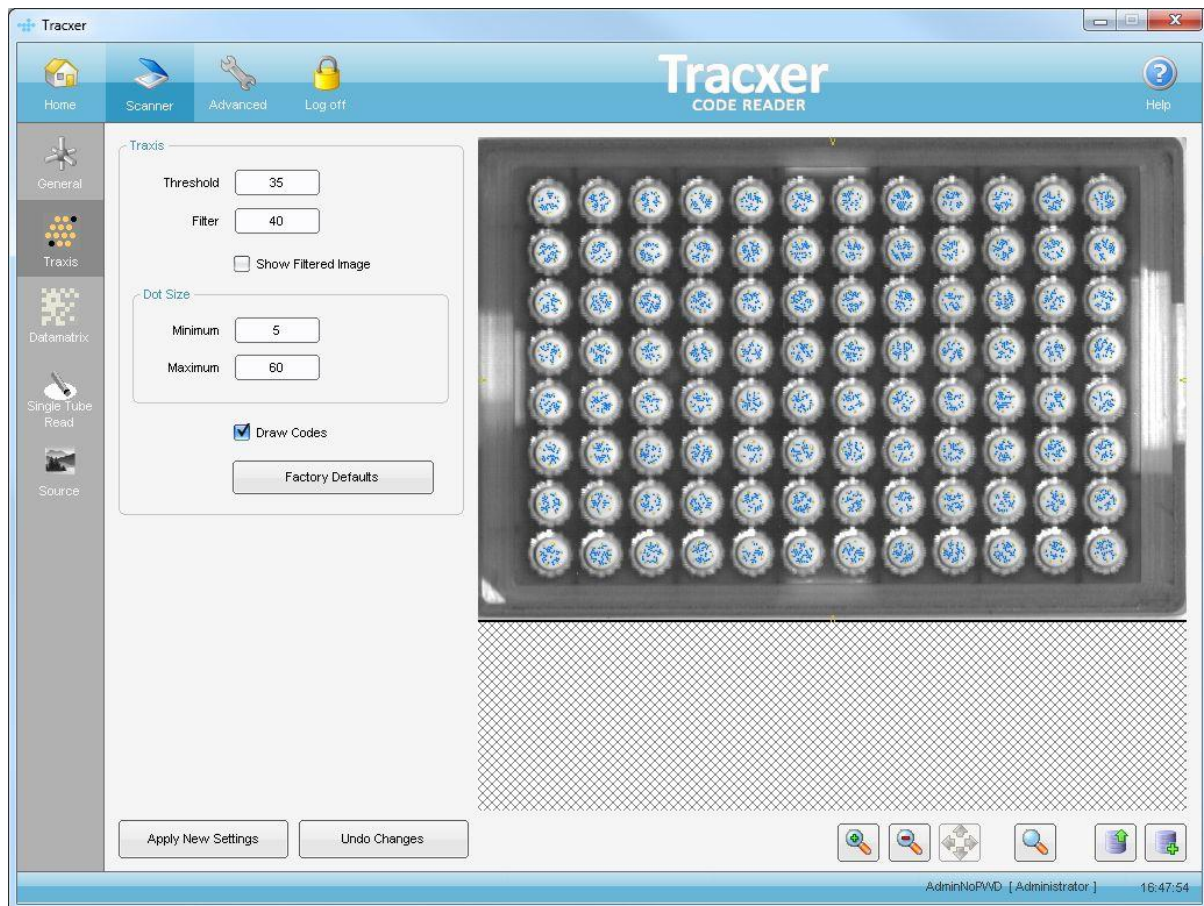


**Draw**

☐ Cells OK ☒ Cells NOK

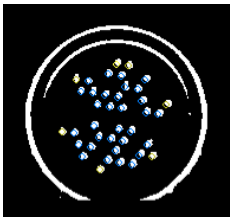


## 5.3 TraXis

This section gives the possibility to change TraXis specific settings which will be used in production.



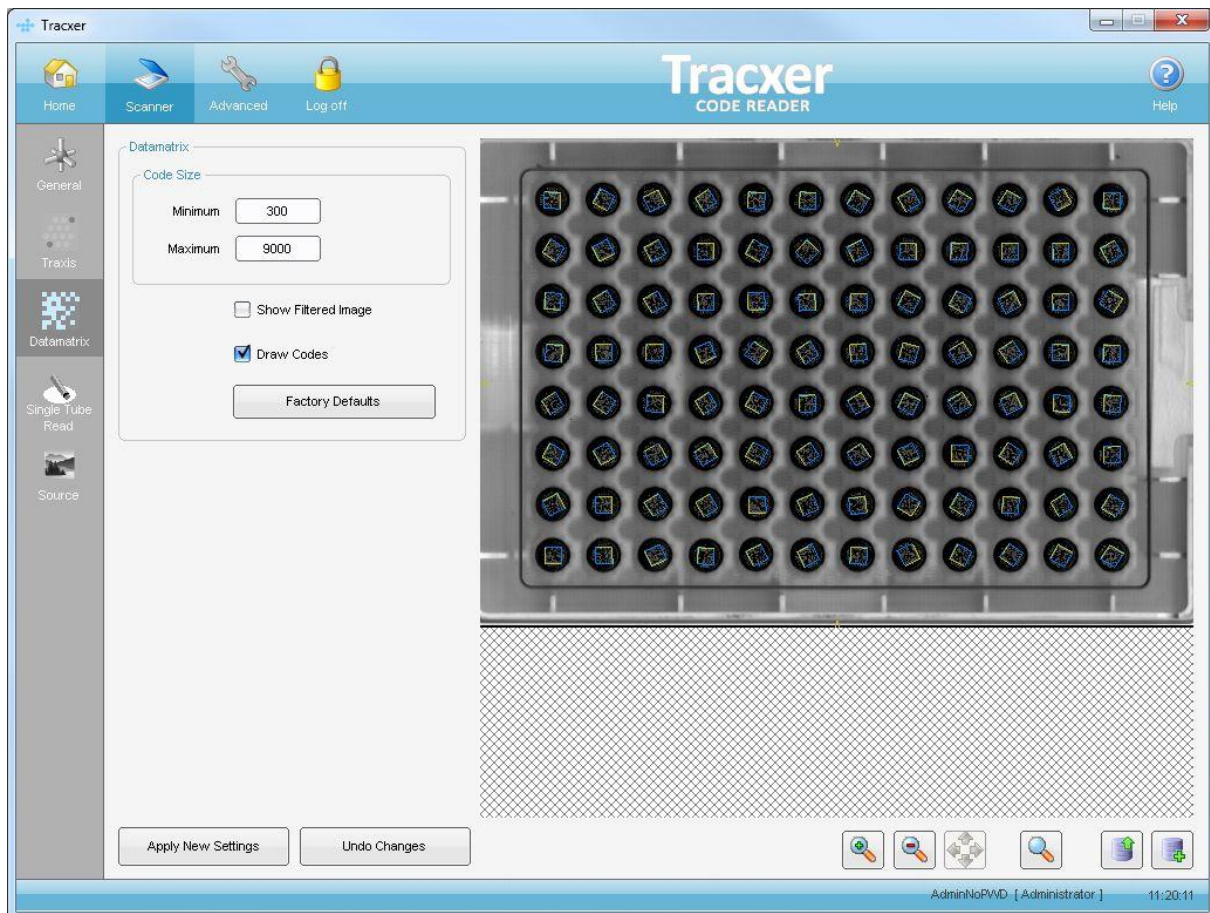
The Threshold and Filter determine the size (and automatically also the shape) of the area that defines the bottom of each tube. The *Image Display* shows these areas in white on a dark background when the *Show Filtered Image* has been checked. Modify the Threshold and Filter value until each TraXis dot of all 96 bottoms are clearly visible and as big as possible.

Adapt the Minimum Size and the Maximum size of the tube bottom areas. Only tubes whose (threshold) white areas have sizes between (and including) the Minimum and Maximum sizes will be analyzed further, both during Set-up and Production. The closer you reach the ideal settings of these parameters, the more tube bottoms will be shown with the code drawn in them in blue and yellow.

	Correct settings	Incorrect settings	Incorrect settings
Reason		Code dots are too large and there is too much noise.	Code dots are too small and cannot be recognized.
Image			

## 5.4 Datamatrix

This section gives the possibility to change Datamatrix specific settings, which will be used in production.



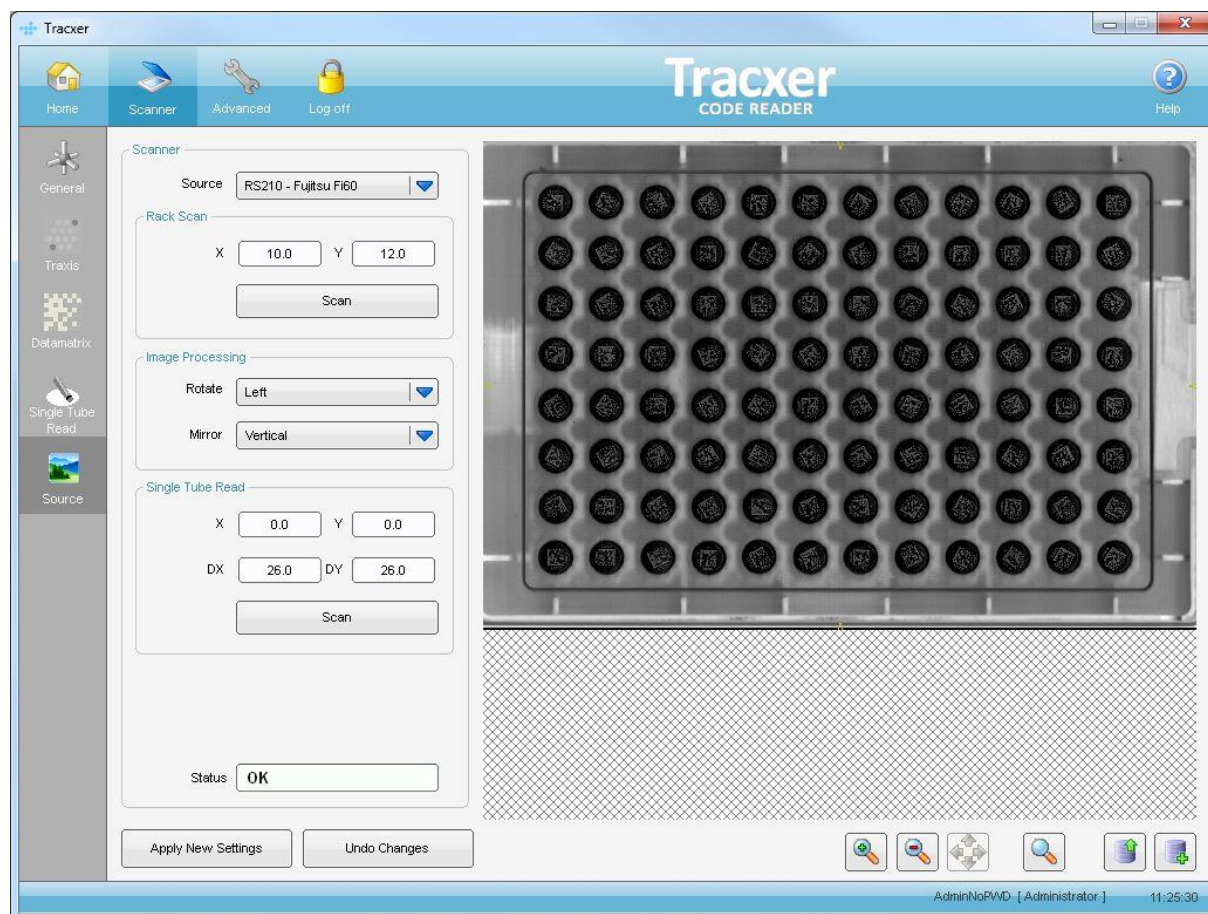
Adapt the Minimum Size and the Maximum size of the tube bottom areas. Only tubes whose white areas have sizes between (and including) the Minimum and Maximum size will be analyzed further, both during Set-up and Production. The closer you reach the ideal settings of these parameters, the more tube bottoms will be shown with the code drawn in them in blue and yellow.

Check the Show Filtered Image to display the filtered image on which the decoding is done.

## 5.5 Source

This section gives the possibility to change Scanner specific settings, which will be used in production.





Using the *Source* selection, a connected scanner can be selected and its pre-sets will be loaded if it is available. To activate the scanner the **Apply New Settings** button must be pressed. From this moment on the new scanner can be used in both production and setup.

The *Tracxer* program does not acquire an image from the total A4- or A5-format area of its glass plate, but only from an area with a size that is slightly larger than a tube rack. You may modify the position of this “field of vision”. It must coincide with the opening in the cover on the scanners’ glass plate, in which the tube racks need to be placed.

Fine tuning of the image cut-out can be done with the Scan Offset parameters X and Y. The size of the image is predefined and cannot be altered.

Click on the Scan button to acquire an image from the scanner. Adapt your settings until the entire tube rack is visible on the monitor. You can verify if the scan area is correct by opening the General page and checking if all tubes are in the middle of their cell. You might use the zoom function of the Mouse Menu (please refer to section 4.6) for optimal view on the entire tube rack or on specific tubes.

The Rotate and Mirror options can be used in case the scanner outputs its image in a different direction than the *Tracxer* program might expect. See separate document for known scanner specific settings.

## 6 ADVANCES PAGE

The following pages are available (depending on the user level):

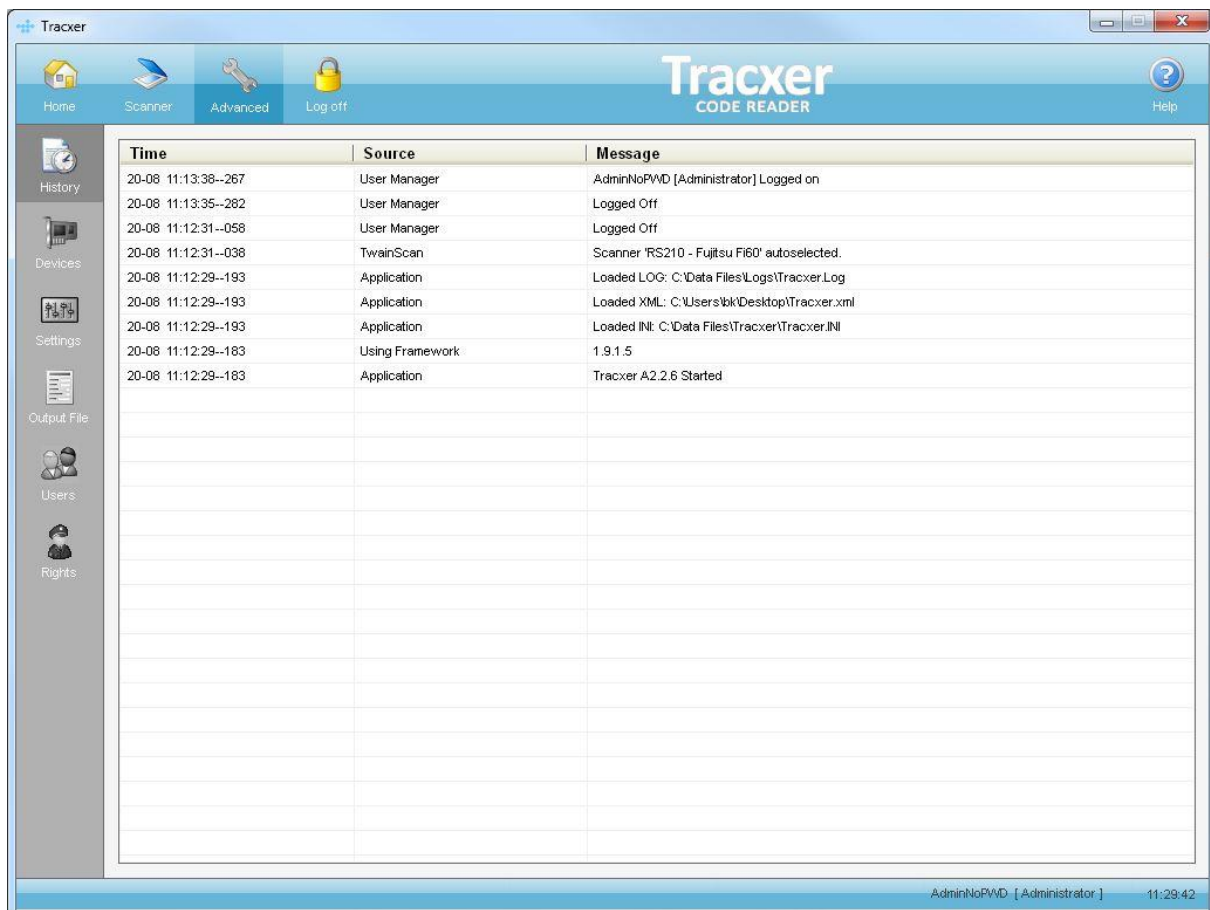
- *History* All system messages: information, warnings and errors.
- *Devices* Setting for code reader, automation and remote control.
- *Settings* General system settings.
- *Output File* Setting for the output file.
- *Users* Managing users, user levels, passwords.
- *Rights* Managing user rights.

## 6.1 History

This page shows a list of the most recent messages. These messages appeared in the *Status Bar* on the moment they occurred.

Three types of messages can occur:

- Information: informational message. No action required.
- Warning: warning message. The system can continue detection. Try to solve the problem.
- Error: severe problem that can cause detection to stop. You need to solve the problem.



## 6.2 Devices

On this page are several sections:

- Barcode Reader
- Automation
- Remote Control

For more information about the Barcode Reader please check the User Manual at [www.Micronic.com](http://www.Micronic.com).

1. Click on 'login' on the top right of the website
2. User name: support, Password: manuals

Further information about Automation and Remote Control can be found as of chapter 8 in this user manual.

The screenshot shows the Tracxer CODE READER software interface. The top navigation bar includes icons for Home, Scanner, Advanced, and Log off, along with the Tracxer logo and a Help icon. The left sidebar contains icons for History, Devices, Settings, Output File, Users, and Rights. The main content area is divided into three sections: Barcode Reader, Automation, and Remote Control. The Barcode Reader section includes a Port dropdown menu, Baudrate (9600), Parity (Even), Stop Bits (1), Data Size (7 Bits), and Flow Control (None). It also has a Commands section with Trigger, Pre-ample, and Post-ample fields, each with a Test button. The Automation section includes Application (Excel) and Macro (ImportResults) dropdowns, a Test button, and a Result field. The Remote Control section includes Connections (0) and Status (OK) fields. The status bar at the bottom shows 'AdminNoPVD [Administrator]' and the time '11:30:46'.

### 6.2.1 Barcode Reader

On the *Devices Page* you can specify the layout of the message that is to be sent by the **Tracxer** program to the 1D barcode reader. This message will command the barcode reader to read the barcode from the tube rack that sits on the scanner cabinet at that moment, and to send that code to the **Tracxer** program. You may also specify to which port of the **Tracxer** program the barcode reader will be connected.

On the 5 lines below the number button, you can specify the various **settings** for the selected port.

On the lines **Trigger**, **Preamble** and **Post-ample**, you may specify the ASCII codes (in decimal numbers) that are sent and received within the messages.

Click on the **Test** button to start testing the (communication with the) barcode reader, and click **Test** once again to stop testing. The read code is shown in the *Result* box.

If the communication is faulty, an error message indicates the cause of the problem (as far as possible).



### 6.2.2 Automation

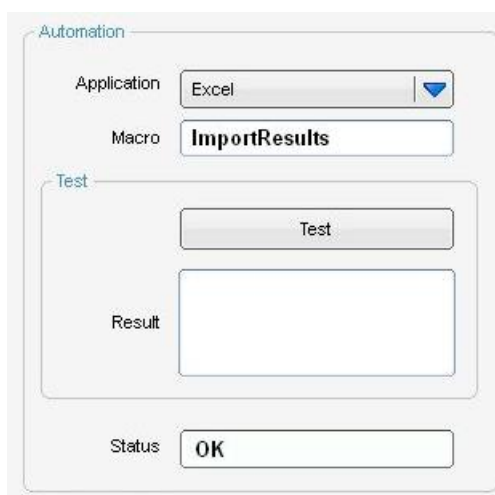
In this area you can specify which program has to act as Automation Server for the **Tracxer** program.

In the *Application* section you may specify the name of the **program** that has to be automated, the options are Excel and Access.

In the *Macro to Run* section, specify the name of the **macro** that will start the application.

Click the **Test** buttons to check if the specified application can be automated successfully with the given macro. The *Status* field show the results of the test in two levels of detail.

- The Automation Server must be started with a document that contains the macro (or procedure) that you specified above.
- In order to start some applications (like Access), the specified macro must be in Visual Basic format. If required you may have that application convert the macro to that format.



The screenshot shows the 'Automation' configuration window. It has a title bar 'Automation'. Inside, there are two main sections. The first section has a label 'Application' followed by a dropdown menu showing 'Excel' and a blue arrow icon. Below this is a label 'Macro' followed by a text box containing 'ImportResults'. The second section is titled 'Test' and contains a 'Test' button and a 'Result' text box. At the bottom of the window is a 'Status' label followed by a text box containing 'OK'.

### 6.2.3 Remote Control

The *Remote Control* section does not offer any setting in this version. Only the general status and the number of connections is shown.

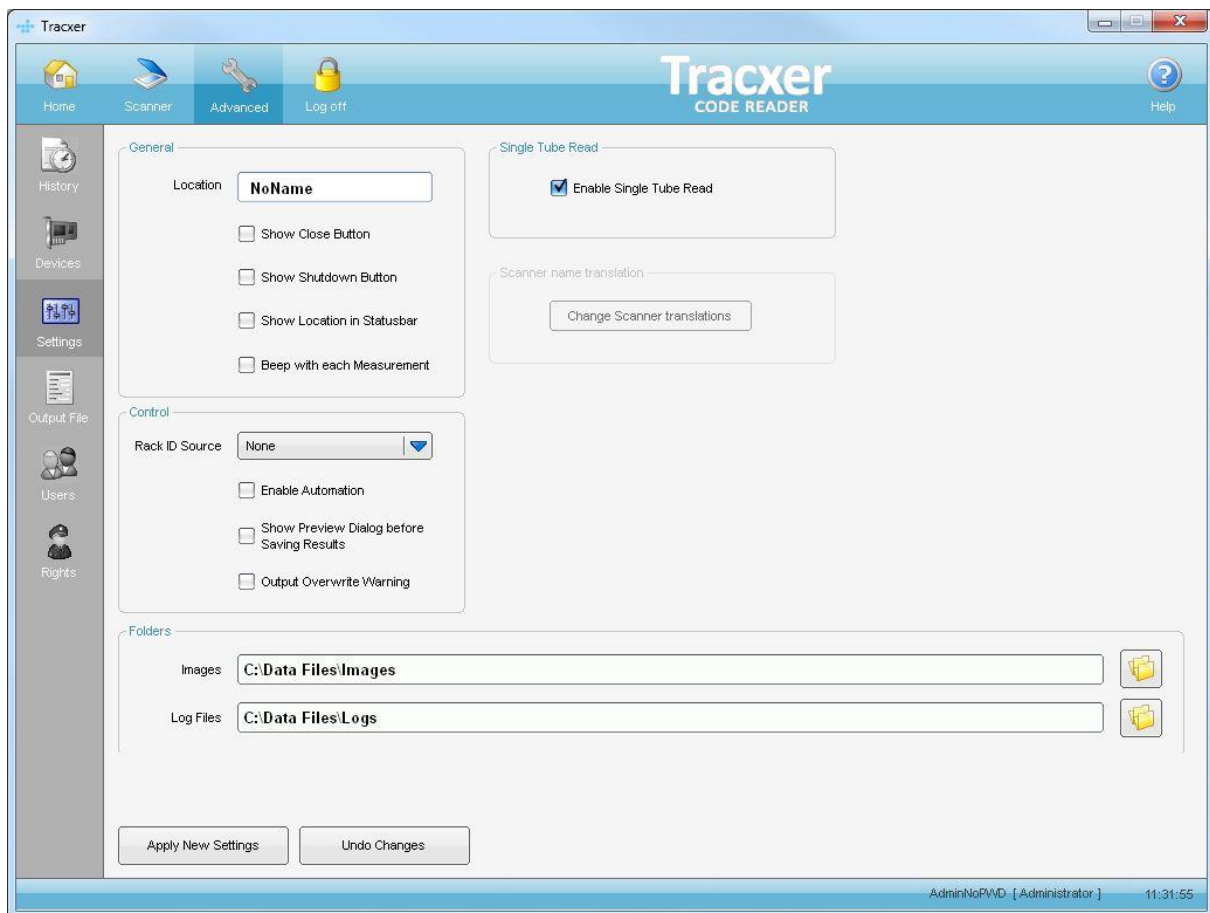
When a Remote Application makes connection to the **Tracxer** Application it will be shown.



The screenshot shows the 'Remote Control' configuration window. It has a title bar 'Remote Control'. Inside, there is a 'Connections' label followed by a text box containing '0'. At the bottom of the window is a 'Status' label followed by a text box containing 'OK'.

## 6.3 Settings

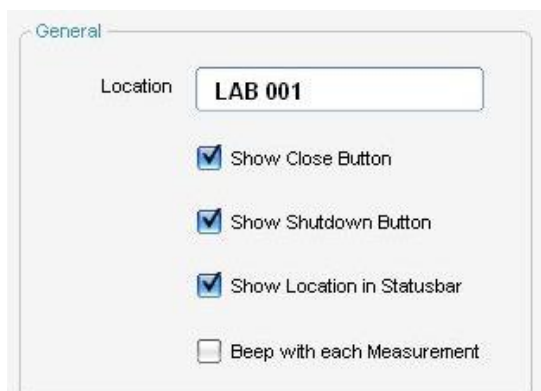
On the *Settings* page several common parameters can be set.



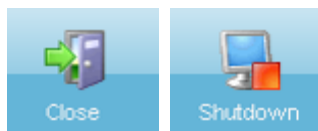
### 6.3.1 General

The general section offers some useful user interface options.

The **Location** field gives you the ability to give a unique name to the Code Reader. This name can be used for registration of the origin of the results. If you have more than one reader, this can be useful.



With the **Show Close Button** option, you can show or hide a button to close the application in the main toolbar.



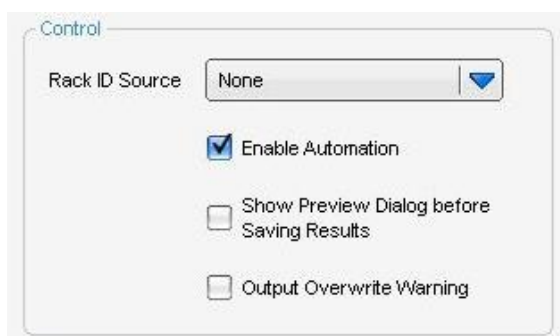
Similar the **Show Shutdown Button** option, can show or hide a button where with the PC can be shutdown.

When you check **Show Location in Status bar**, the name which has been entered in the location field will appear in the Status bar.

**!** When you change one of the above options, you have to press the **Apply New Settings** and also have to restart the **Tracxer** program before the settings will become active.

### 6.3.2 Control

Here the behavior of the “Scan & Export” action can be arranged.



The following options are available:

- **Rack ID Source:** define if and what the connected barcode reader device is. Options are:
  - **None:** the rack ID will not be read.
  - **Serial Device:** the device configured at the *Devices Page – Barcode Reader* will be used.
  - **Keyboard Wedge:** this will at pressing the Scan & Export button, show a popup dialog box where an rack ID can be entered manually or a connected keyboard wedge can be used to scan the barcode of the tube rack.
- **Enable Automation:** whether or not to perform automation after the decoding.
- **Show Preview Dialog before saving results:** will show a popup dialog with the decode results.
- **Output overwrite warning:** can be enabled to show a warning when an output file is about to be overwritten. Depending on the way of re-scanning this might be unwanted, in that case, the warning can be suppressed.

### 6.3.3 Folders

The *Folders* section lets you define where the log files will be written and where the default folder for the images is located. When opening or saving an image always a popup dialog is shown and you can select other folders.



To change the folder, press the button on the end of the edit box and a popup dialog will let you select the new location.

## 6.4 Output File

The *Output File* Page lets you define how the results will be stored. Here, the name of the consecutive files, the location of the files, and how and what the contents of each file are, can be defined.

### 6.4.1 Filename

In the *Filename* section, the name of the output files can be composed. The name will be constructed by elements which can be chosen in the *Composition* sub section. The following options are available:

- **Date:** this will add the current date to the filename. The format is: "yyyymmdd".
- **Time:** this will add the current time in the format "hhmmss" to the name.
- **Sequence Number:** this will add a number to the name. The number will be increased by one after each "Scan & Decode". The format and start value can be set in the *Sequence Number* section.
- **Rack ID:** this will add the read or entered ID of the tube rack to the filename.
- **Free Text:** this will add the entered free text to each saved file. If for example a specific batch must be label uniquely, here you can enter the specific string.

The separator lets you define the character which will be put between the different elements. The following characters are available:

- Space
- Underscore
- Dash
- Plus Sign

Next, there is the *Free Text* element. The here entered string will be used one on one in the filename. This might be handy to distinguish a certain group of racks afterwards.

The screenshot shows the 'Filename' configuration panel. It includes a 'Separator' dropdown set to 'Space', a 'Free Text' input field containing 'FILE', a 'Sequence Number' section with 'Digits' set to 3, 'Start Value' set to 0, and an unchecked 'Reset at Program Startup' checkbox. Below this is a 'Composition' section with six numbered dropdown menus: 1. Free Text, 2. Sequence Number, 3. Rack ID, 4. Date, 5. Time, and 6. An empty dropdown. At the bottom, the 'Extension' is set to '.csv'.

The *Sequence Number* element can add numbering to the filename. After each “Scan & Decode” the value will increase by one. The number of digits can be set. This will define the maximum value. Reaching the maximum, the number will start from 0 again. The number of digits will also be used for the formatting of the string; missing digits will be preceded by zeros. The *Start Value* lets you enter the desired number to start with.

Next in the *Composition* sub section the elements can be chosen. There are 7 possible entries, each gives you the same selection. The order is decisive for the position in the name.

Lastly, you can define an *Extension* for the filename. Default the extension is “csv”, but you are free to enter any string you like.

### 6.4.2 Formatting

In the formatting section one can define how the global format of the contents are. One can select a character by which all fields must be separated. Possible characters are:

- Comma
- Comma and Space
- Semicolon
- Colon
- Tab

The screenshot shows the 'Formatting' configuration panel. It includes a 'Separator' dropdown set to 'Comma'.

### 6.4.3 Header

Optional you can add a free text to compose header in the file. With the checkbox in front of the group box name this is switched.

Again there are a list of options you can select from:

- **Date:** this will add the current date to the header. The format is: "yyyymmdd".
- **Time:** this will add the current time in the format "hhmmss".
- **Sequence Number:** this will add the sequence number. The format and start value can be set in the *Sequence Number* section.
- **Rack ID:** this will add the read or entered ID of the tube rack.
- **Free Text:** this will add the entered free text.

### 6.4.4 Footer

Optional you can add a free to compose footer in the file. With the checkbox in front of the group box name this is switched.

Only two option for the footer are available:

- **Free Text:** this will add the entered free text
- **Add New Line:** For will insert an empty line after each footer. This might come handy for manual looking through saved files.

### 6.4.5 Records

For the each decoded tube a record will be written in the output file. In the *Records* section the following list of options is available to store per tube:

- **Tube ID:** the recognized or decoded ID of a tube.
- **Position:** the position of the tube inside the rack. The format is a character per column and a number per row.
- **Rack ID:** the read or entered ID of the rack.
- **Status:** the result of the decoding. The following states are possible:

- **OK** - When everything is normal, the code has been recognized correctly.
- **No Tube** - There was no tube detected.
- **No Code** - A tube was detected, but the code could not be read.
- **Error Count**: when the redundancy of the code is used to finalize the decoding, the number of used bits is written here.
- **Date**: this will add the current date to the header. The format is: "yyyymmdd".
- **Time**: this will add the current time in the format "hmmss".

The records or tubes can be sorted column wise or row wise. The Sorting setting gives you these options.

With the *Include Field Names*, an extra line will be inserted which describes the contents of the fields.

With the option *One Record per Line* after each record a carriage return will be added. If you omit this check, all data per rack will be put on a single line.

#### 6.4.6 Output

The last section is the *Output*. Here the location of the output file can be assigned. Clicking on the button with the yellow folders icon will present a popup dialog which lets you select an existing folder. Also the composed filename is already shown.

An important option is the *One Rack per File*. This makes the difference between creating a new file for each rack or storing all rack data in one single file. **Please note that the name composition is not variable. When date is added a new file is created each day.**

Then the last button is the *Preview*, this will pop-up a dialog showing the output file in table form. All the used options of the other sections will be used to show the final generated output file. Below is an example of such preview.



### 6.4.7 Output Settings for Integration into LabCollector LIMS

For optimal integration of the **Tracxer** Code Reader Software into the LabCollector Laboratory Information Management System, the following settings are recommended. With these settings the output file can be imported directly into the LabCollector application.

The screenshot displays the Tracxer CODE READER software interface. The top menu bar includes Home, Scanner, Advanced, Log off, Shutdown, Close, and Help. The left sidebar contains icons for History, Devices, Settings, Output File, Users, and Rights. The main window is divided into several sections:

- Filename:** Separator is set to '-'. Free Text is 'FILE'. Sequence Number is set to 3 digits, starting at 1, with 'Reset at Program Startup' checked. Composition lists 6 fields: Free Text, Sequence Number, Rack ID, Date, Time, and an empty field. Extension is '.CSV'.
- Formatting:** Separator is 'Comma'. Header is checked with Free Text 'header'. Composition lists 6 fields: Free Text, Sequence Number, Rack ID, Date, Time, and an empty field. Footer is unchecked with Free Text 'footer' and 'Add New Line' unchecked.
- Records:** Sorting is 'Column Wise (A01 B01 C01)'. 'Include Field Names' is checked. Fields list 6 fields: Position, Tube ID, Status, Error Count, Rack ID, and an empty field. Line Start and Line End are both unchecked. 'Add Separator' is unchecked, 'One Record per Line' is checked, and 'One Rack per File' is checked. A 'Preview' button is present.
- Output:** Folder is 'C:\Data Files\Output'. Example filename is 'FILE-001-70200039-20160608-134735.csv'. 'Apply New Settings' and 'Undo Changes' buttons are at the bottom.

The status bar at the bottom shows 'Nc-906', 'AdminNoPWD [Administrator]', and the time '13:47:49'.

FILE 000 70200039 20140820 114423.csv

header,000,70200039,20140820,114423

Line Start	Position	Tube ID	Status	Error Count	Rack ID	Date	Line End
Line Start	Position	Tube ID	Status	Error Count	Rack ID	Date	Line End
Start text	A01	0005C300	OK	0	70200039	20140820	End text
Start text	B01	0005C310	OK	0	70200039	20140820	End text
Start text	C01	0005C320	OK	0	70200039	20140820	End text
Start text	D01	0005C330	OK	0	70200039	20140820	End text
Start text	E01	0005C340	OK	0	70200039	20140820	End text
Start text	F01	0005C350	OK	0	70200039	20140820	End text
Start text	G01	0005C360	OK	0	70200039	20140820	End text
Start text	H01	0005C370	OK	0	70200039	20140820	End text
Start text	A02	0005C301	OK	0	70200039	20140820	End text
Start text	B02		No Code	0	70200039	20140820	End text
Start text	C02	0005C321	OK	0	70200039	20140820	End text
Start text	D02	0005C331	OK	0	70200039	20140820	End text
Start text	E02	0005C341	OK	0	70200039	20140820	End text
Start text	F02	0005C351	OK	0	70200039	20140820	End text
Start text	G02	0005C361	OK	0	70200039	20140820	End text
Start text	H02	0005C371	OK	0	70200039	20140820	End text
Start text	A03	0005C302	OK	0	70200039	20140820	End text
Start text	B03		No Code	0	70200039	20140820	End text
Start text	C03	0005C322	OK	0	70200039	20140820	End text
Start text	D03	0005C332	OK	0	70200039	20140820	End text
Start text	E03	0005C342	OK	0	70200039	20140820	End text
Start text	F03	0005C352	OK	0	70200039	20140820	End text
Start text	G03	0005C362	OK	0	70200039	20140820	End text
Start text	H03	0005C372	OK	0	70200039	20140820	End text

footer

Close

## 6.5 Users

[illegible]

The **Tracxer** program has various levels of operation, to be used by different types of users:

- Administrator System management, maintenance.
- Supervisor System installation, management, maintenance.
- User Daily operation of the system.
- Logged off Nobody is logged in.

Upon installation some users will be added to the list.

In order to prevent inadvertent abuse of these levels, they are secured by passwords. It is the responsibility of the Administrator to maintain the user levels.

Please notice that you will only see users on your own User Level and lower.

You can specify to **Automatically Logoff after** a certain amount of time.

By clicking on the **Add** button you start the *New User* pop-up dialog, in which you can define the characteristics of a new user on your own User Level or lower. Please pay attention to using the correct (lower or upper) case for the characters you type!

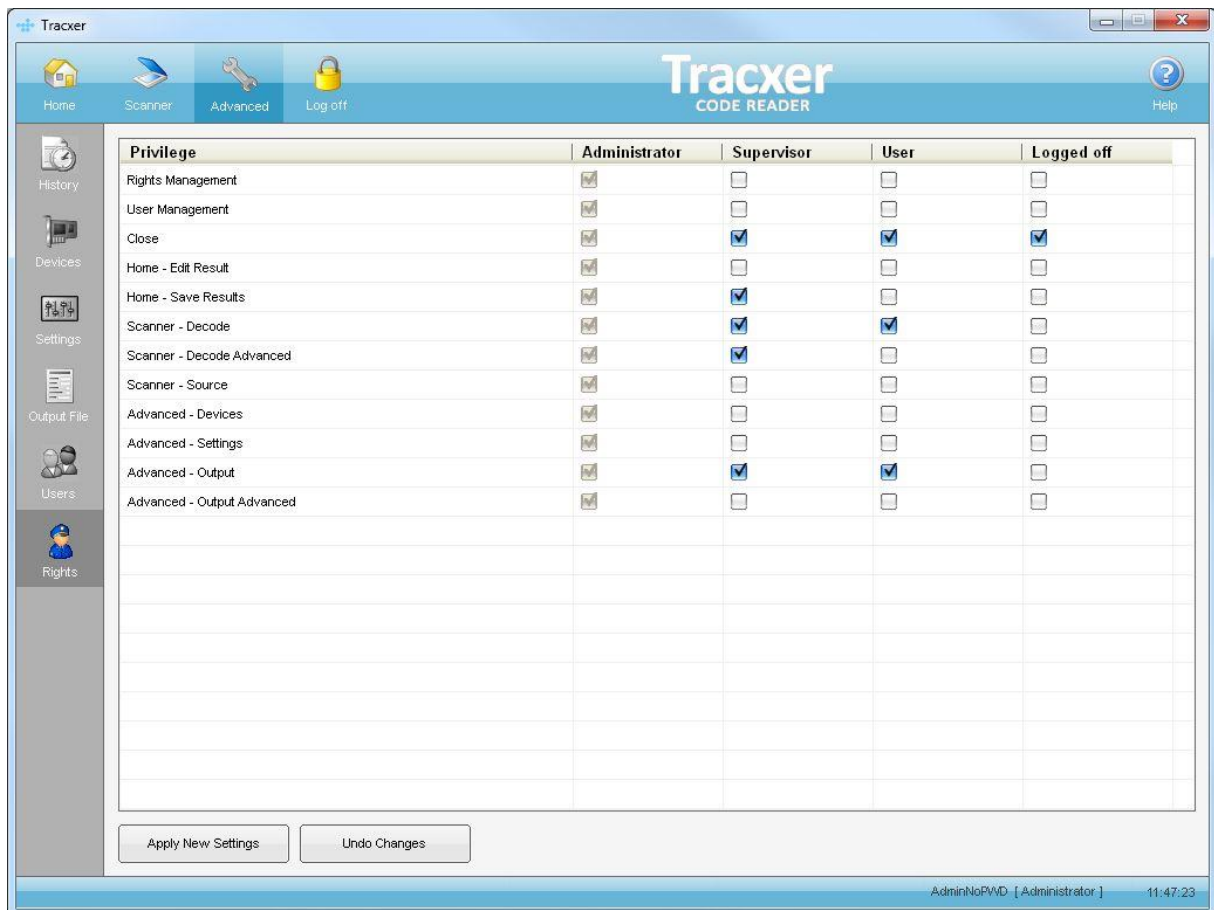
The 'New User' dialog box is shown with the following fields and controls:

- User Name:** Text input field.
- Password:** Text input field.
- Full Name:** Text input field.
- Confirm Password:** Text input field.
- Description:** Text input field.
- Level:** Dropdown menu currently showing 'User'.
- Buttons:** 'OK', 'Cancel', and 'Hide Keyboard'.
- Virtual Keyboard:** A grid of buttons for letters (Q-Z), numbers (1-0), and special keys like backspace, enter, and a numeric keypad.

When for some reason usernames or passwords get lost the help desk can always make new users via the installed VPN connection for remote service. In real emergencies you can use the *Keys* button on the Login dialog as describes in paragraph [Log on – Log off](#).

## 6.6 Rights management

This page shows the available levels and activity groups of the **Tracxer** program. By checking the various check boxes, you can allow User Levels to access specific activities.



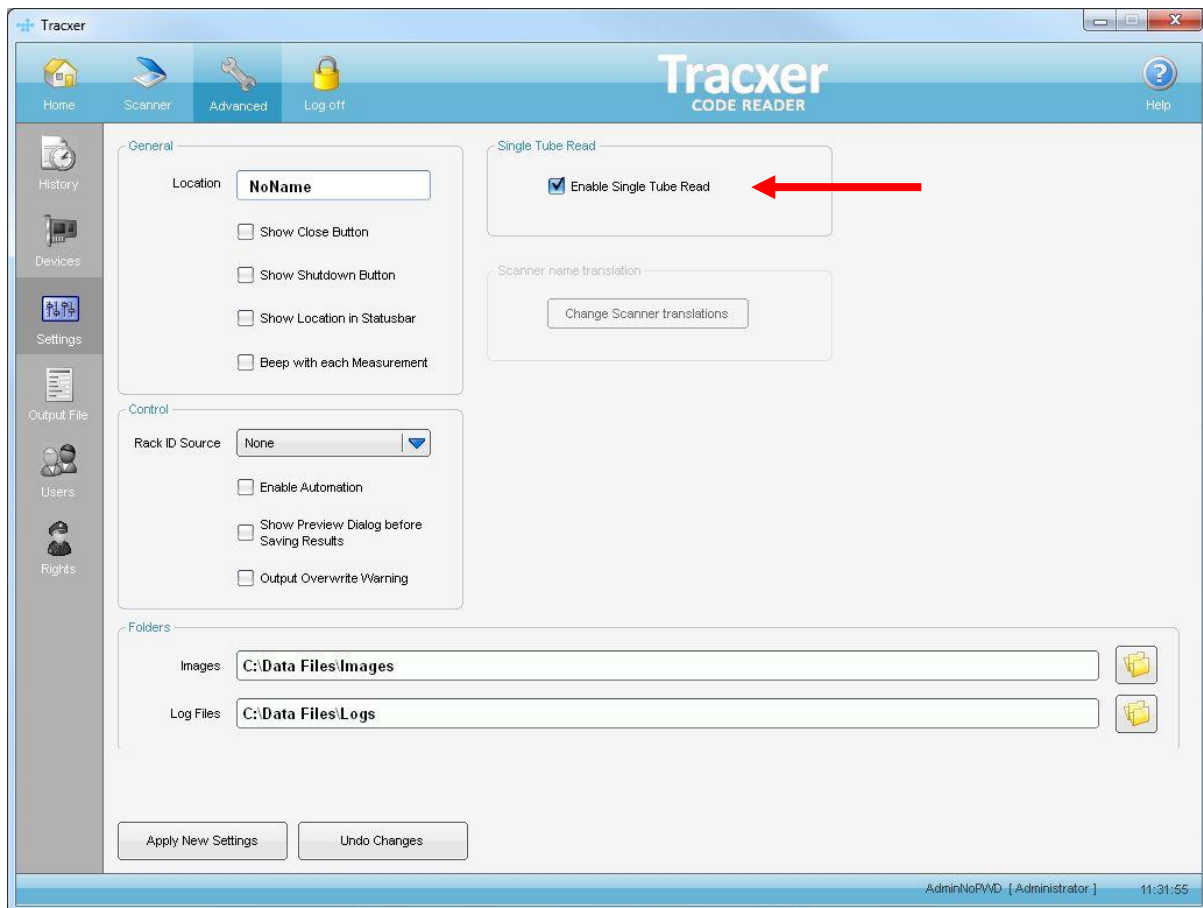
Incorrect use of the functions of this menu can lead to inaccessibility of the **Tracxer** program by other users or yourself.

! We do not accept any responsibility for the consequences of unauthorized use of these functions or for leaking the User Names and/or Passwords that enable such misuse.

## 7 SINGLE TUBE READ

### 7.1 Enabling Single Tube Read

The Single Tube Read option can be disabled or enabled by (un)checking the checkbox *Enable Single Tube Read* on page "Advanced => Settings".



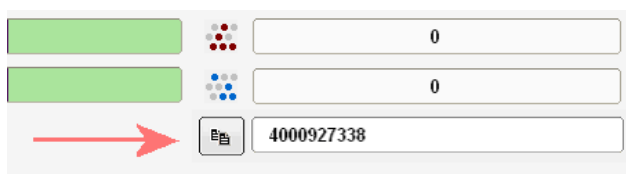
## 7.2 Single Tube Read features

If the option is enabled four things will happen in the User Interface:

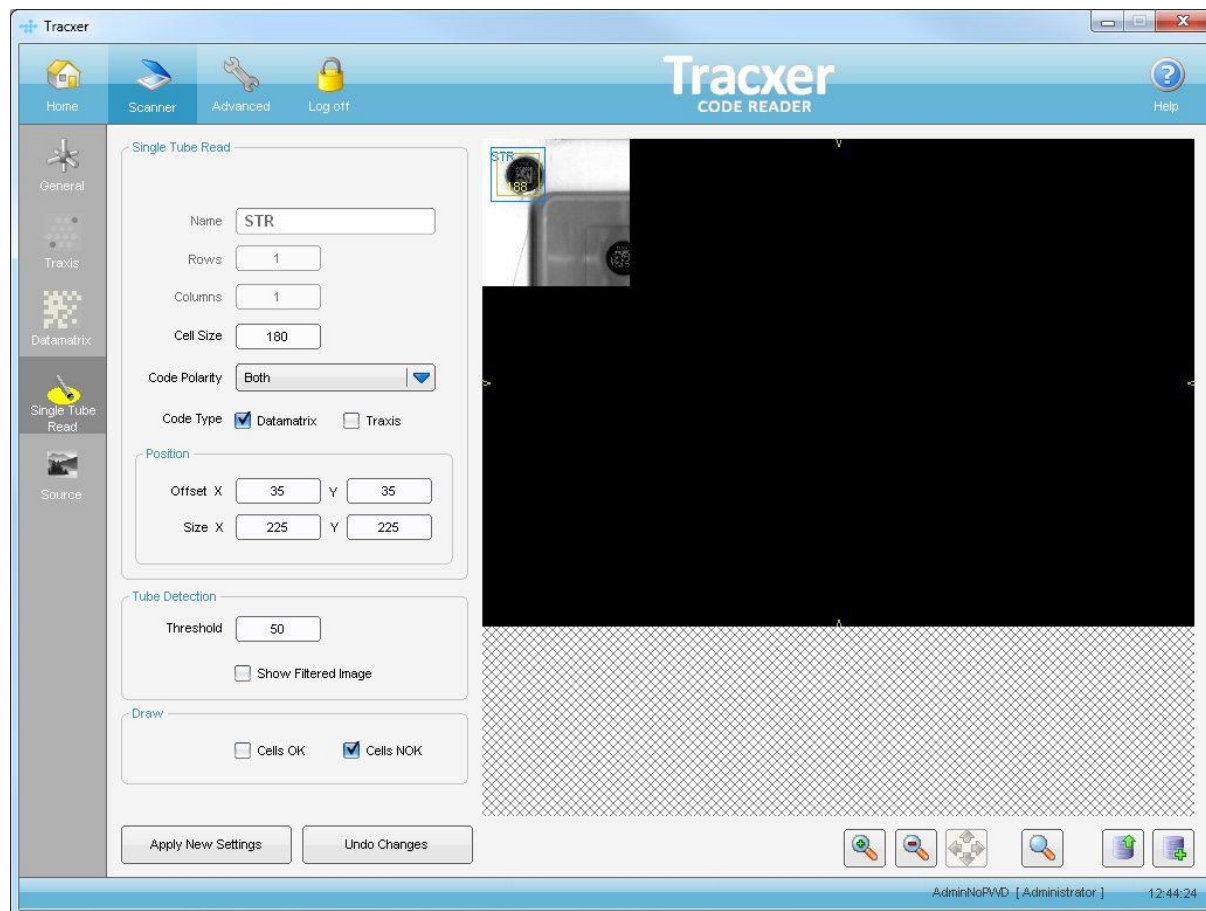
1. An extra icon (with an orange '1') will appear in the Home page toolbar on the left:



2. The Home page will show an extra field for the Single Tube Read decode result, together with the button to copy this to the clipboard:



3. At the Scanner page an extra icon will appear in the toolbar on the left:



Clicking this icon gives access to the setup page for Single Tube Read. Some things are fixed, like 'name' and the number of rows and columns. Other things like offset and size of the scan area can be set. The functionality is basically the same as on the 'General' page.

4. In the Scanner / Source page extra parameter settings appear for the Single Tube Read:

	Source> Single Tube Read				Single Tube Read> Position			
	X	Y	DX	DY	Offset X	Offset Y	Size X	Size X
RS297 - Epson V37	16	6	26	26	35	35	225	225
RS210 - Fujitsu Fi65	0	6.5	27	27	35	35	225	225
RS235 - AVA6	43	0	26	26	2500	1500	420	420

### 7.3 Reading the Single Tube

After applying the right values for the parameters a Single Tube Read scan can be started with by clicking on the following icon:

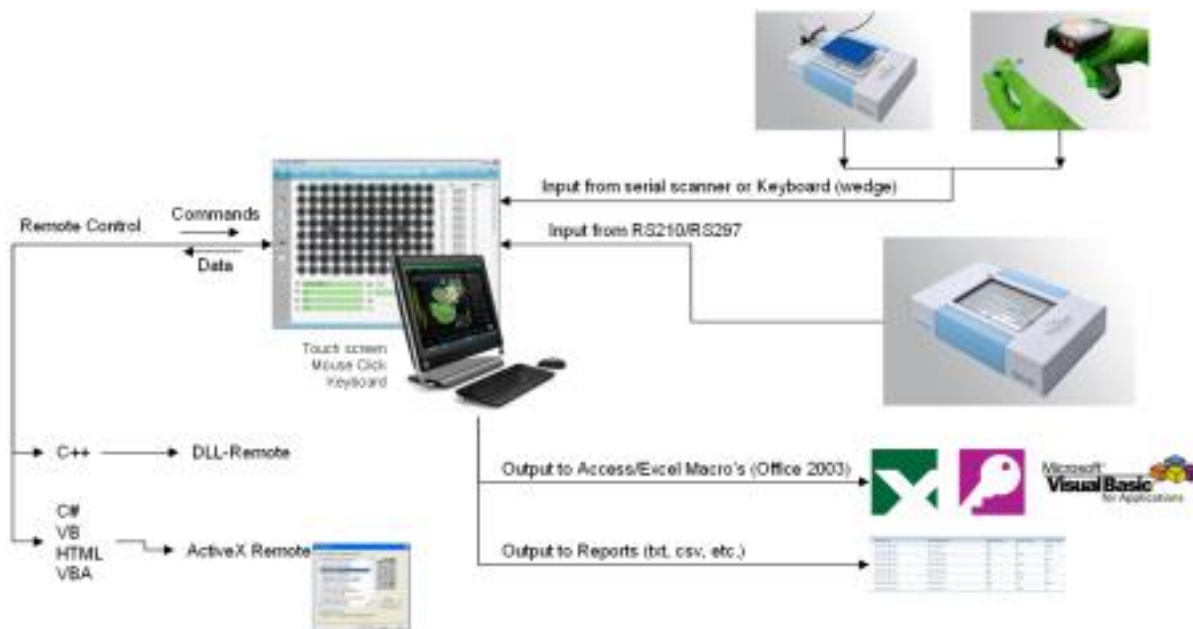


The single tube is decoded and the result, as aforementioned, is put into the result field at the Home Page, whence it can be copied to the clipboard.



## 8 INTERFACE - AUTOMATION

The **Tracxer** application has different interface abilities - shown in the picture below. This paragraph describes the use of macro's.



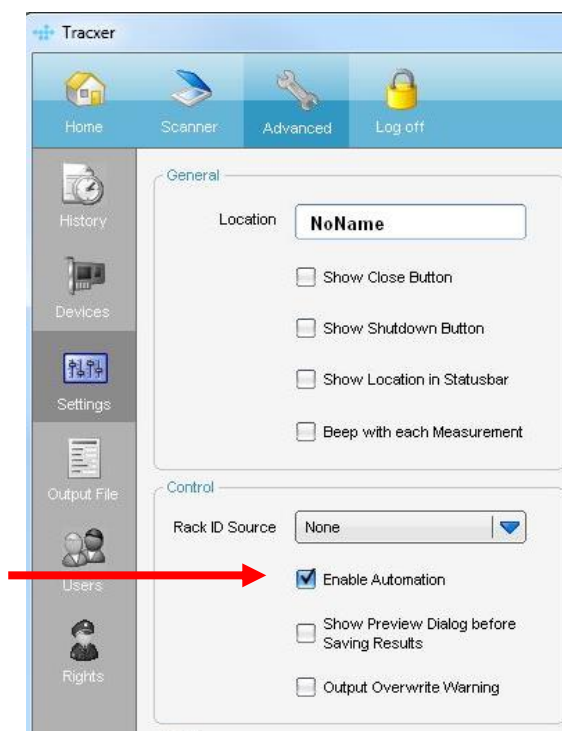
### 8.1 Macro's using in Automation-mode

The **Tracxer** Code Reader Software has the ability to use the Macro functionality in Microsoft Excel. The following steps will help you to set up the Macro functionality of the **Tracxer** Code Reader Software. The macro definition has to be in the file. The templates are developed for Microsoft Office 2003.

#### Step 1:

To enable the macro examples it has to be marked at the control box which can be found in the Advanced → Settings menu in the **Tracxer** Code Reader Software.

Please be sure the use of macros is enabled and you press 'Apply New Settings'.



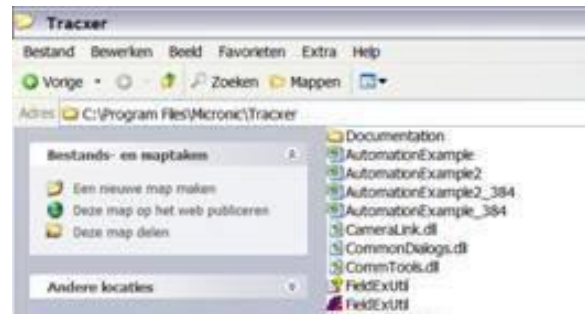


**Step 2:**

Open one of the following Excel files:

As example or for demonstration purposes 4 Microsoft Excel files with the macro's included are available in the following directory in the install folder:

[.:Interfaces\Automation.](#)

**8.2 Explanation of the Macro's**

The most used examples are:

- |   |  |   |
|---|--|---|
| 1 | <a href="#">AutomationExample.xls</a>      | Transfers the code results in an 8x12 matrix layout.<br>This can be used to identify quickly the imported results in a standard 8x12-layout.                                    |
| 2 | <a href="#">AutomationExample_384.xls</a>  | Transfers the code results in a 16x24 matrix layout.<br>This can be used to identify quickly the imported results in a standard 16x24-layout.                                   |
| 3 | <a href="#">AutomationExample2.xls</a>     | Transfers the code results in 96 rows layout.<br>Any new scan will be added after the previous results.<br>This can be used to create a single file with more reading results.  |
| 4 | <a href="#">AutomationExample2_384.xls</a> | Transfers the code results in 384 rows layout.<br>Any new scan will be added after the previous results.<br>This can be used to create a single file with more reading results. |

[Example 1 and 2](#) receive the data directly when called by the **Tracxer** Code Reader Software. The data is transmitted directly into the open excel file. This needs to be saved manually otherwise the data will be overwritten in the next scan. [Example 2](#) is as reference to be used for the tube rack 384-format, but also for 24- and 48-format.

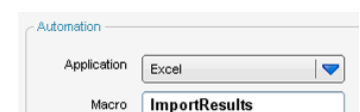
[Example 3 and 4](#) receive the data directly when called by the **Tracxer** Code Reader Software. The data is transmitted directly into the open excel file. The next scan will add the data into the file. It needs to be saved manually otherwise the data will be overwritten in the next run. [Example 4](#) is as reference to be used for the tube rack 384-format, but also for 24- and 48-format.

**8.3 Standard Settings for the Macro's**

In the **Tracxer** Code Reader Software go to Advanced → Devices → Automation and make sure the settings are set as displayed underneath here for the following Automation Examples:

- 1 [AutomationExample.xls](#)
- 2 [AutomationExample\\_384.xls](#)
- 3 [AutomationExample2.xls](#)
- 4 [AutomationExample2\\_384.xls](#)

Menu: [Advanced] → [Devices] → [Automation]  
 Application: Excel  
 Macro to Run: ImportResults

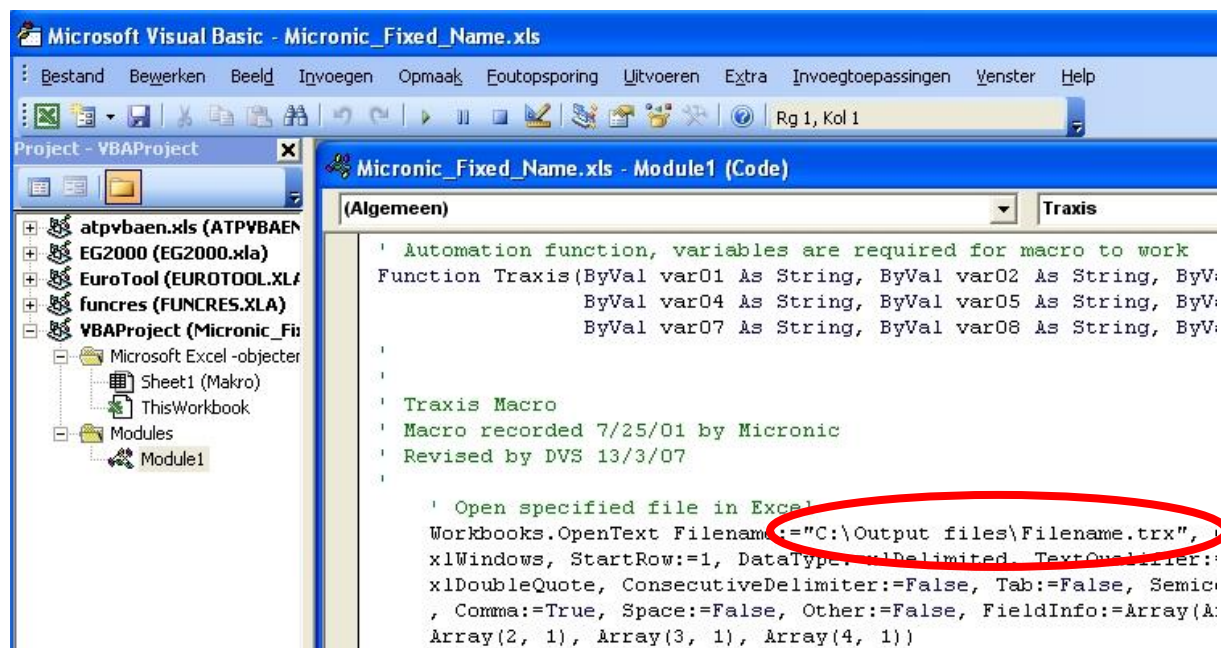


After these three steps you are ready for use.

Please note that standard Macro to run is set to “macro name”.

## 8.4 Editing the macro in VBA

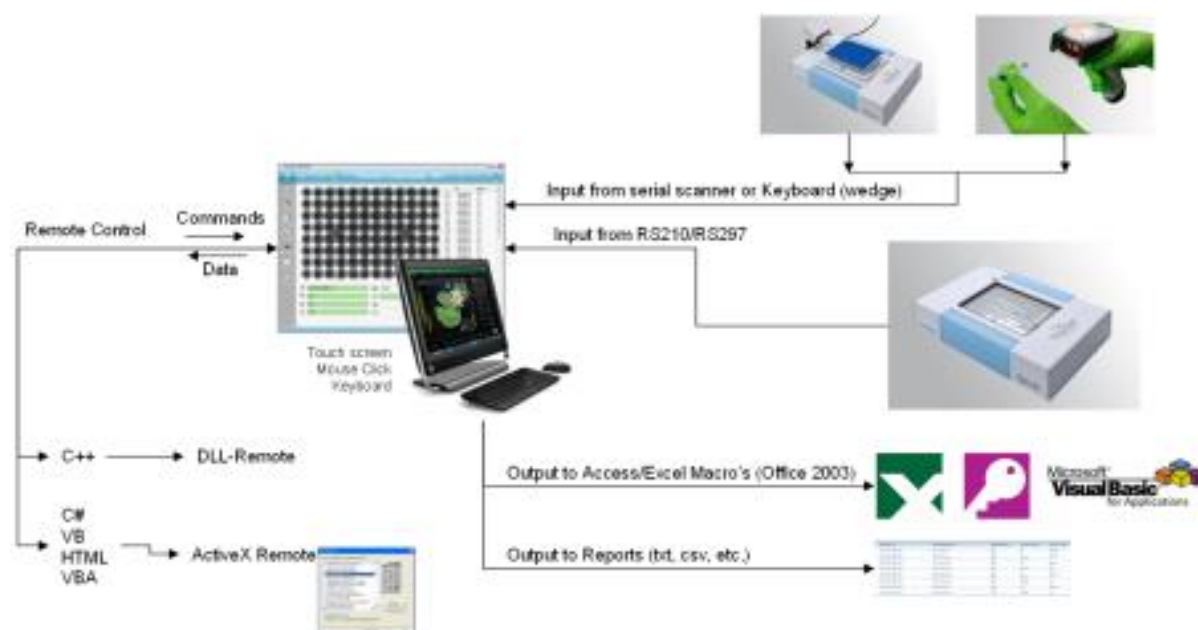
The macro can be edited to fulfill personal needs, for example other locations or filenames. This can be done with the visual basic editor in Excel (Open Excel and go to Tools → Macro → Visual Basic editor).



The example for Access can also be observed via VBA Editor.

## 9 INTERFACE – REMOTE DLL

The **Tracxer** application has different interface abilities, shown in the picture below. This paragraph describes the use of DLL-Remote.



The **Tracxer** Code Reader remote API allows you to control the **Tracxer** Code Reader Software from another computer. The programming of this remote function should be done by experienced people. For demonstration and as example a small program is supplied.

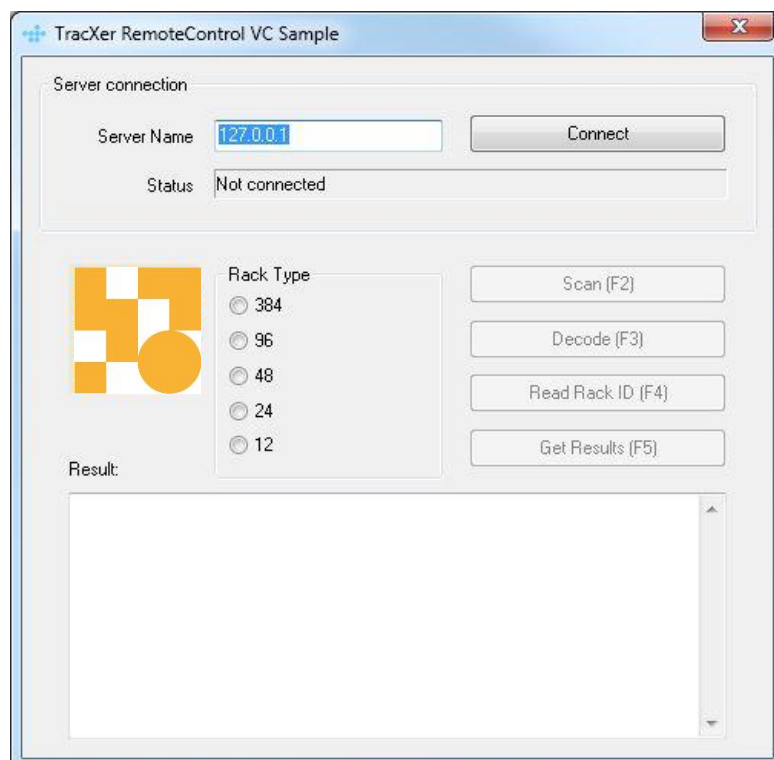
After installing the **Tracxer** Code Reader Software a sample and source project can be found in the following directory in the install folder: **:\Interfaces\Remote Control DLL**.

This folder contains the following information:

- DLL: Contains the dll file(s) required to run the TracXerRemoteControl\_VC.exe sample program.
- Include: Contains the include file(s) required to build the sample.
- Lib: Contains the library file(s) required to build the sample.  
The RemoteLib.lib can be used using this API reference.
- Project Source: Contains the Microsoft Developer Studio Workspace source code in which the demo program is described. This can be used as demonstration for own development. If you just want to run the sample as it is, copy the following files in the same folder on the remote computer and run the exe.
  - o \DLL\CommTools.dll
  - o \Project Source\TracxerRemoteControl\_VC\Release\TracXerRemoteControl\_VC.exe

## 9.1 Demo Remote Control with DLL

The **Tracxer** RemoteControl is also installed with the **Tracxer** Code Reader Software.



- 1 Install the **Tracxer** Code Reader Software on the main computer.  
The main computer should have the Security Dongle and the scanner connected.
- 2 Check the IP-address of the main computer, this is necessary to connect to the remote computer.  
The IP-address cannot be found:  
Go to Start and Run.  
Type cmd.exe in the Run dialog box and type **ipconfig**.  
Now the IP-address should be shown.  
This IP-address you have to enter as '**Server Name**' on the computer you are using as remote control.
- 3 Run the **Tracxer** Code Reader Software on the main computer.
- 4 Copy the following files in the same folder (i.e. C:\Program Files\Micronic\TracxerRemote) on the remote computer and run the exe.
  - \DLL\CommTools.dll
  - \Project Source\TracxerRemoteControl\_VC\Release\TracXerRemoteControl\_VC.exe
- 5 Open the program **TracxerControl.exe** on the remote computer.
- 6 When the **Tracxer** RemoteControl window pops up you have to enter the IP-address of the main computer in the server name box.
- 7 After pressing 'Connect', the status should change to connected and now you are ready to scan from another computer. Enter the Rack Type and press the remote action wanted.

## 9.2 Description of available functions in Remote Control DLL

This reference will describe the available functions in the TracxerControl API.

### NOTIFICATION HOOK

typedef void NotificationHook ( DWORD error, const char \*errorString );

### CONNECTTOSERVER

Makes a connection to the Tracxer application.

Prototype: long \_stdcall crc\_ConnectToServer ( LPCTSTR szServerName);

Parameter: szServerName – string containing computer name or IP-address. When running on the local system you can use 127.0.0.1 as server name.

Return Value: Returns 1 when the call is successful.

**DISCONNECT**

Disconnects from the Tracxer application.

Prototype: void \_stdcall crc\_Disconnect ( void );

**ISCONNECTED**

Returns the connection status.

Prototype: long \_stdcall crc\_IsConnected ( void );

Return Value: Returns 0 when there is no connection and non-zero when a connection exists.

**CANCELWAITFORRETURN**

If a scan has been started and timeout has not yet occurred this function can be used to cancel the call.

Prototype: void \_stdcall crc\_CancelWaitForReturn ( void );

**SETTIMEOUT**

Sets the timeout value for the call.

Prototype: void \_stdcall crc\_SetTimeOut ( long lTimeOut );

Parameter: lTimeOut – timeout value in milliseconds

**GETTIMEOUT**

Retrieves the current set timeout value.

Prototype: long \_stdcall crc\_GetTimeOut ( void );

Return Value: Timeout value in milliseconds

**SETENABLEPOPUPS**

Sets whether the application should show message popups.

Prototype: void \_stdcall crc\_SetEnablePopups ( bool bEnablePopups );

Parameter: bEnablePopups – enable/disable pop ups.

**GETENABLEPOPUPS**

Retrieves the current set timeout value.

Prototype: BOOL \_stdcall crc\_GetEnablePopups ( void );

Return Value: Returns 1 if pop ups are enabled.

**SETNOTIFICATIONHOOK**

Prototype: void \_stdcall crc\_SetNotificationHook ( NotificationHook Hook );

**GETRACKDATA**

Retrieves the rack data from the application. Formatting used is the same as defined on the application's Output File page.

Prototype: BSTR \_stdcall crc\_GetRackData ( void );

Return Value: Large string containing formatted text. The actual data returned, including fields and separators, is defined on the application's Output File page.

**SCANDECODEOUTPUT**

Scans an image, decodes the current image with the current parameters, gets the rack id and outputs the data.

Prototype: long \_stdcall crc\_ScanDecodeOutput ( void );

Return Value: Returns 1 when the call is successful.

**SCAN**

Scans an image.

Prototype: long \_stdcall crc\_Scan ( void );

Return Value: Returns 1 when the call is successful.

**DECODE**

Decodes the current image with the current parameters.

Prototype: `long _stdcall crc_Decode ( void );`

Return Value: Returns 1 when the call is successful.

**GETRACKID**

Starts the barcode reader.

Prototype: `BSTR _stdcall crc_GetRackID ( void );`

Return Value: Returns the read barcode as a string or NOREAD when no barcode was read. Returns NO ID when a timeout occurs.

**SETRACKTYPEBYINDEX**

Sets the rack type to decode.

Prototype: `long _stdcall crc_SetRackTypeByIndex ( int index );`

Parameter: index – integer to define the rack type being used. The definition is as follows:

0 – 384 tubes

1 – 96 tubes

2 – 48 tubes

3 – 24 tubes

4 – 12 tubes

Example: `crc_SetRackTypeByIndex( 1 );` or `crc_SetRackTypeByIndex( TRAY_TYPE_96 );`

Return Value: Returns 1 when the call is successful.

**SETRACKTYPEBYNAME**

Sets the rack type to decode.

Prototype: `long _stdcall crc_SetRackTypeByName ( LPCTSTR szRackType );`

Parameter: szRackType – string to define the rack type being used.

Current string names can be retrieved with the function `GetRackTypeName( int index )`.

Example: `crc_SetRackTypeByName( "96 [8x12]" );`

Return Value: Returns 1 when the call is successful.

**GETRACKTYPE**

Prototype: `long _stdcall crc_GetRackType ( void );`

Return Value: Integer value for the rack type used. See `SetRackType` for rack type definitions. Returns -1 when failed.

**GETRACKTYPENAME**

Gets the rack type of the specified index.

Prototype: `BSTR _stdcall crc_GetRackTypeName ( int index );`

Parameter: index – integer to define the rack type being requested.

Return Value: Large string containing returns a string describing the rack type if the index is valid; an empty string otherwise. Useful e.g. for filling a list box with rack types.

**AUTOMATIONAPPLICATION**

Sets the application to use for automation.

Prototype: `long _stdcall crc_AutomationApplication ( LPCTSTR szApplication );`

Parameter: szApplication – string to define the application being used.

Current options are Excel and Access.

Return Value: Returns 1 when the call is successful.

**AUTOMATIONMACRONAME**

Sets the name of the macro to use for automation.

Prototype: `long _stdcall crc_AutomationMacroName ( LPCTSTR szMacroToRun );`

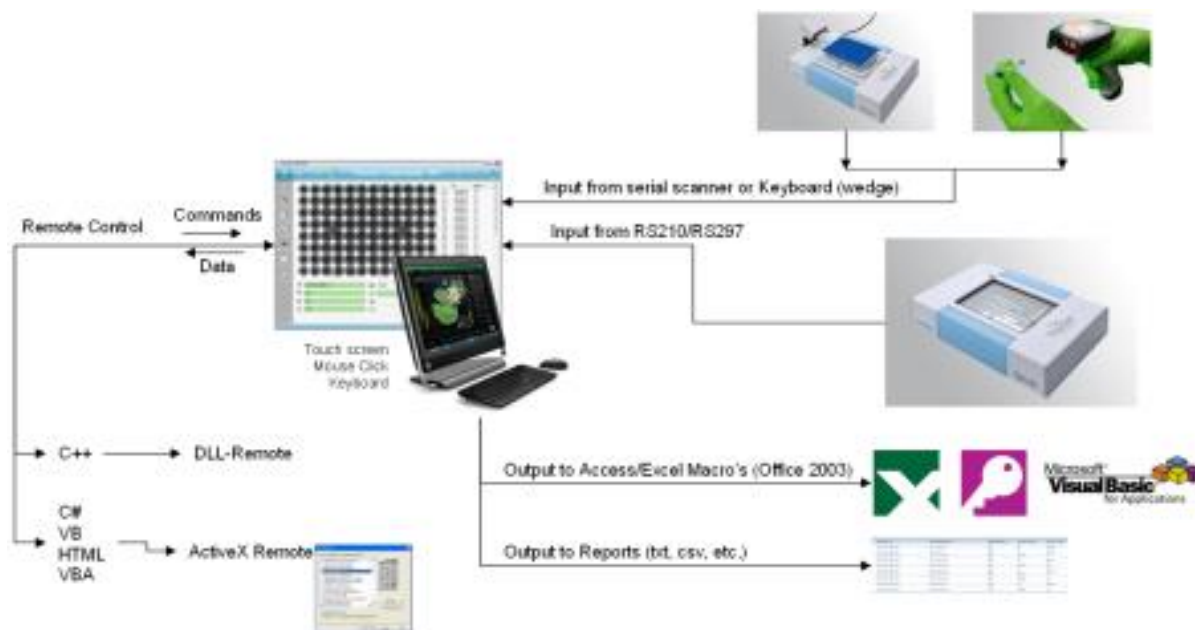
Parameter: szMacroToRun – string to define the Macro being used.

Return Value: Returns 1 when the call is successful.



## 10 INTERFACE – REMOTE ACTIVEX

The **Tracxer** application has different interface abilities, shown in the picture below. This paragraph describes the use of the ActiveX Remote.



The **Tracxer** Code Reader ActiveX allows you to control the **Tracxer** Code Reader Software from another computer. The programming of this remote function should be done by experienced people. For demonstration and as example examples are supplied. The ActiveX component can be found in the following directory in the install folder: [:\Interfaces\Remote Control ActiveX](#).

The folder [:\Interfaces\Remote Control ActiveX\Samples](#) contains the demonstration programs and necessary files. These can be placed on the remote computer.

### 10.1 Remote Control Active-X Installation

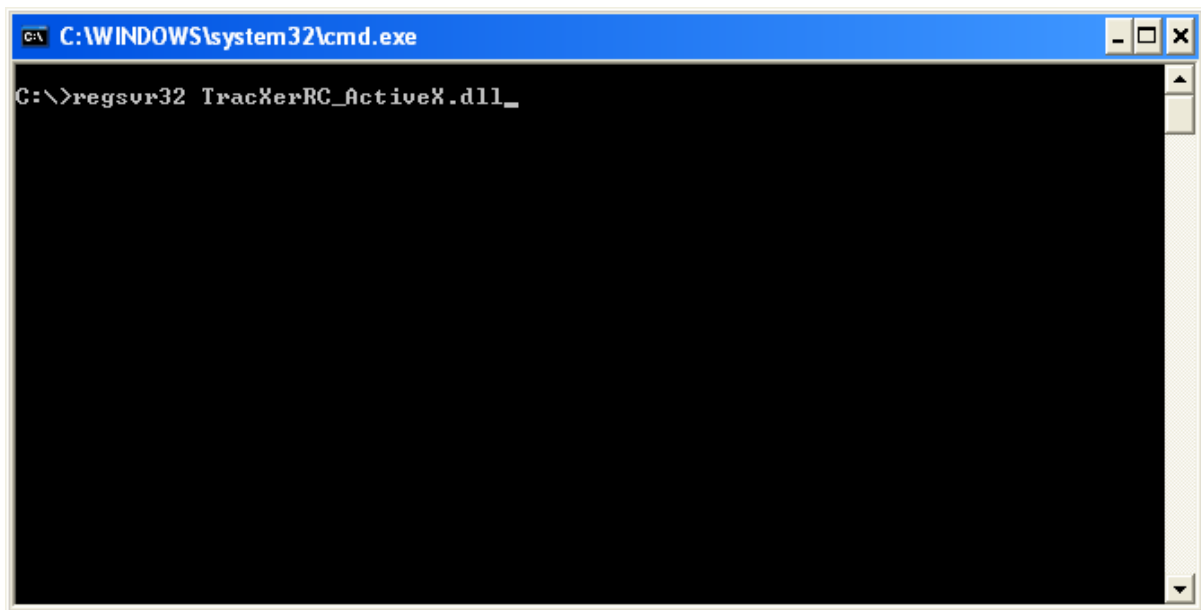
For the PC with the **Tracxer** Code Reader application:

The install program has copied **TracxerRC\_ActiveX.dll** to the directory on your PC where the application 'Tracxer.exe' is installed.

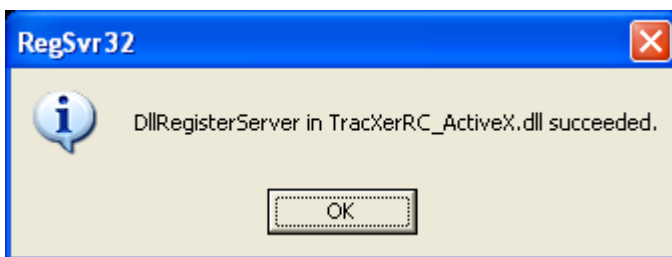
For the PC with the Remote Control:

Use the windows program **regsvr32** in the command window to register the control by feeding the control path to **regsvr32**; the path can contain spaces so it is necessary to enclose it in quotes.

Example:



The control is installed on the PC. If registration is successful the following message is displayed:



## 10.2 Remote Control Active-X Controls

Make sure the [Tracxer](#) application is active; if it is not the control will not start it.

The following properties are available (Read & Write):

**String IpAddress**

the IP address of the PC containing the Tracxer Software

**long RackType**

the type of the rack to be scanned

**long TimeOut**

time to wait for the requested operation

**long EnablePopups**

enables or disables popup error boxes

Properties can be used as follows:

Read: `int index = codeReader.RackType;`

Write: `codeReader.RackType = TRAY_TYPE_96;`

The following functions are available:

**ConnectToServer**

Makes a connection to the Tracxer application.

Prototype: long ConnectToServer ( LPCTSTR szServerName );

Parameter: szServerName – string containing computer name or IP-address. When running on the local system you can use 127.0.0.1 as server name.

Return Value: Returns 1 when the call is successful.

**Disconnect**

Disconnects from the Tracxer application.

Prototype: void Disconnect ( void );

**IsConnected**

Returns the connection status.

Prototype: long IsConnected ( void );

Return Value: Returns 0 when there is no connection and non-zero when a connection exists.

**CANCELWAITFORRETURN**

If a scan has been started and timeout has not yet occurred this function can be used to cancel the call.

**Prototype**

void CancelWaitForReturn ( void );

**SetTimeOut**

Sets the timeout value for the call.

Prototype: void SetTimeOut ( long ITimeOut );

Parameter: ITimeOut – timeout value in milliseconds

**GetTimeOut**

Retrieves the current set timeout value.

Prototype: long GetTimeOut ( void );

Return Value: Timeout value in milliseconds

**SETENABLEPOPUPS**

Sets whether the application should show message popups.

Prototype: void SetEnablePopups ( bool bEnablePopups );

Parameter: bEnablePopups – enable/disable pop ups.

**GETENABLEPOPUPS**

Retrieves the current set timeout value.

Prototype: BOOL GetEnablePopups ( void );

Return Value: Returns 1 if pop ups are enabled.

**SetNotificationHook**

Prototype: void SetNotificationHook ( NotificationHook Hook );

**GetRackData**

Retrieves the rack data from the application. Formatting used is the same as defined on the application's Output File page.

Prototype: BSTR GetRackData ( void );

Return Value: Large string containing formatted text. The actual data returned, including fields and separators, is defined on the application's Output File page.

**ScanDecodeOutput**

Scans an image, decodes the current image with the current parameters, gets the rack id and outputs the data.

Prototype: long ScanDecodeOutput ( void );

Return Value: Returns 1 when the call is successful.

**Scan**

Scans an image.

Prototype: long Scan ( void );

Return Value: Returns 1 when the call is successful.

**Decode**

Decodes the current image with the current parameters.

Prototype: long Decode ( void );

Return Value: Returns 1 when the call is successful.

**GETRackID**

Starts the barcode reader.

Prototype: BSTR GetRackID ( void );

Return Value: Returns the read barcode as a string or NOREAD when no barcode was read. Returns NO ID when a timeout occurs.

**SetRackTypeBYINDEX**

Sets the rack type to decode.

Prototype: long SetRackTypeByIndex ( int index );

Parameter: index – integer to define the rack type being used. The definition is as follows:

0 – 384 tubes

1 – 96 tubes

2 – 48 tubes

3 – 24 tubes

4 – 12 tubes

Example: codeReader.SetRackTypeByIndex( 1 ); or codeReader.SetRackTypeByIndex( TRAY\_TYPE\_96 );

Return Value: Returns 1 when the call is successful.

**SetRackTypeBYNAME**

Sets the rack type to decode.

Prototype: long SetRackTypeByName ( LPCTSTR szRackType );

Parameter: szRackType – string to define the rack type being used.

Current string names can be retrieved with the function

GetRackTypeName(int index ).

Example: codeReader.SetRackTypeByName( "96 [8x12]");

Return Value: Returns 1 when the call is successful.

**GetRackType**

Prototype: long GetRackType ( void );

Return Value: Integer value for the rack type used. See SetRackType for rack type definitions. Returns -1 when failed.

**GetRackTypeNAME**

Gets the rack type of the specified index.

Prototype: BSTR GetRackTypeName ( int index );

Parameter: index – integer to define the rack type being requested.

Return Value: Large string containing returns a string describing the rack type if the index is valid; an empty string otherwise. Useful e.g. for filling a list box with rack types.

**AUTOMATIONAPPLICATION**

Sets the application to use for automation.

Prototype: long AutomationApplication (LPCTSTR szApplication);

Parameter: szApplication – string to define the application being used.

Current options are Excel and Access.

Return Value: Returns 1 when the call is successful.

**AUTOMATIONMACRONAME**

Sets the name of the macro to use for automation.

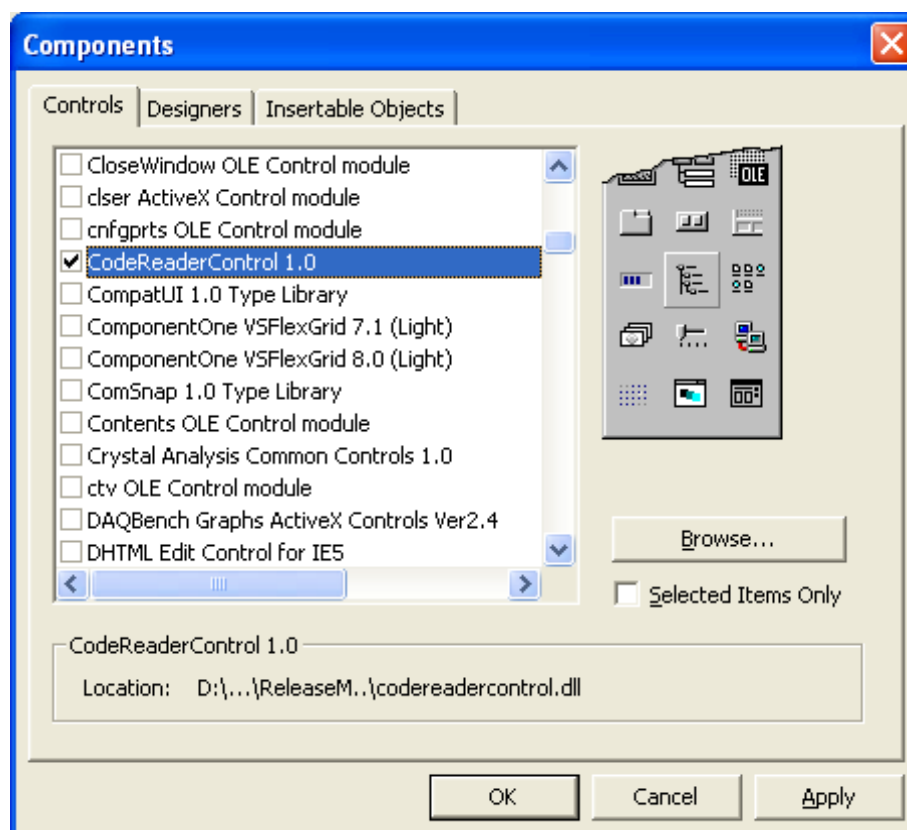
Prototype: long AutomationMacroName (LPCTSTR szMacroToRun);

Parameter: szMacroToRun – string to define the Macro being used.

Return Value: Returns 1 when the call is successful.

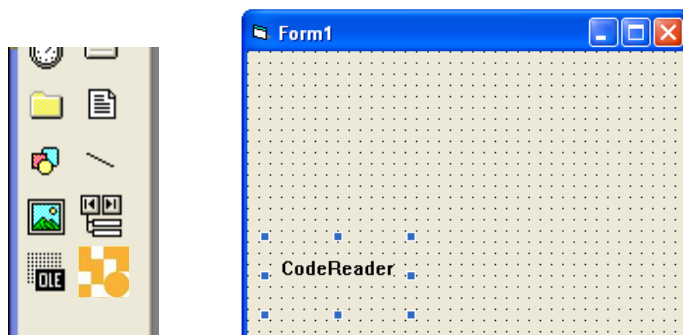
**10.3 Remote Control Active-X Visual Basic Example**

Now open your Visual Basic program on the remote PC in the directory “VB Demo” and add the component:



Use the Browse button to locate the control on the [Tracxer](#) PC, click OK.

The component becomes visible in the tool bar and can, after selecting it, be drawn on the dialog:



The code contains the line:

```
CodeReaderCtl1.IpAddress = "127.0.0.1"
```

This has to be changed to the IP address of the PC running the *Tracxer* program.

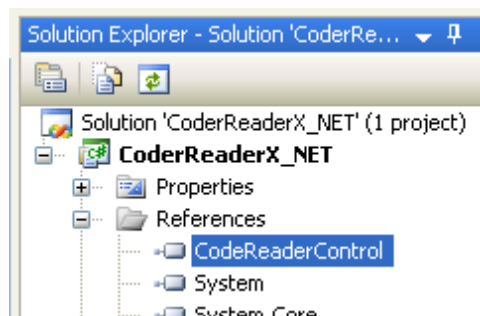
After that the control methods can be called:

```
CodeReaderCtl1.Scan
```

```
CodeReaderCtl1.Decode
```

#### 10.4 Remote Control Active-X C# Example

A C# example program has been added that shows all functionality. The reference to 'CodeReaderControl' has to be added.



This can be done with "Add reference" and the "Browse" tab.

The code contains the line:

```
codeReader.IpAddress = "127.0.0.1"
```

This has to be changed to the IP address of the PC running the *Tracxer* program.



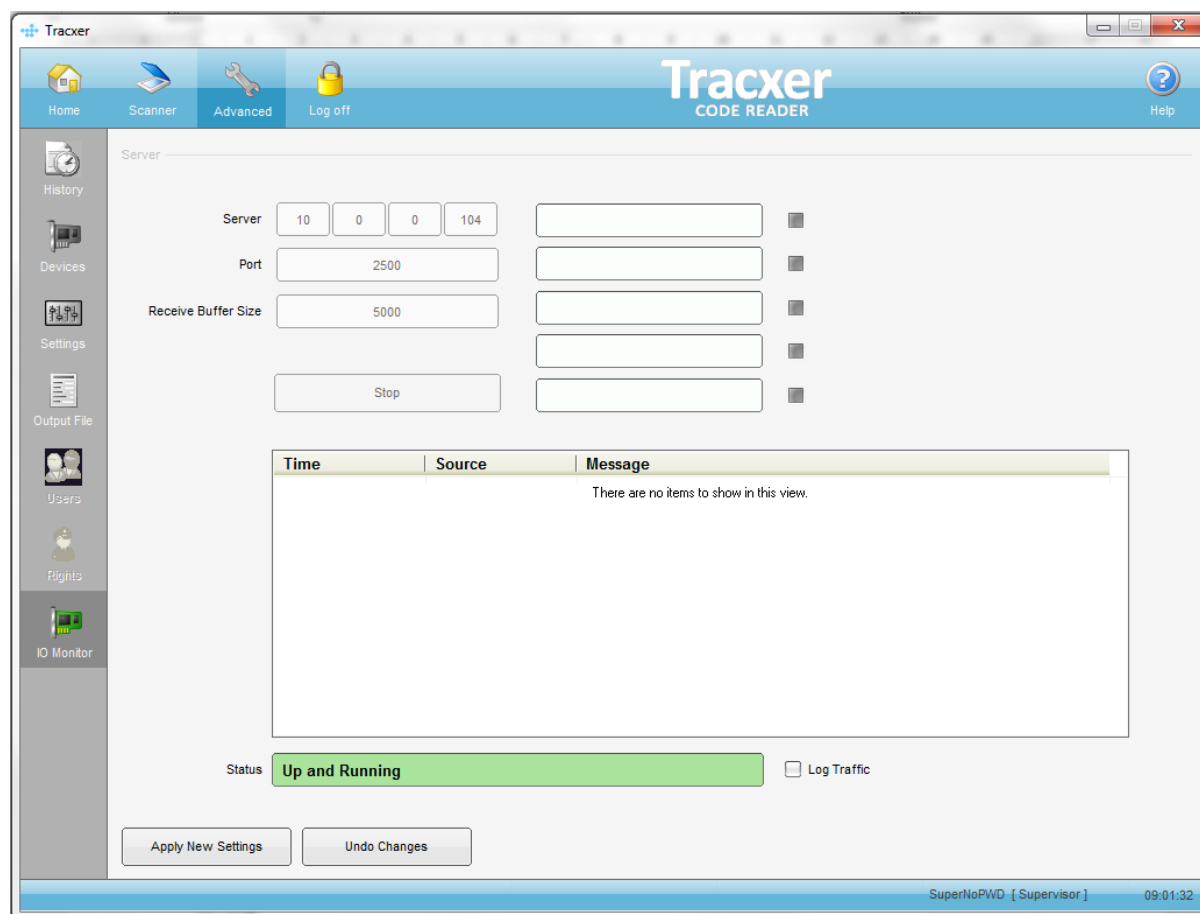
## 11 INTERFACE – TCP/IP SOCKET COMMUNICATION (IO MONITOR)

The IO Monitor is a TCP/IP server interface which allows an external client to control the **Tracxer** Code Reader Software.

### 11.1 Accessing the IO Monitor

The IO Monitor user interface can be found under the “Advanced” tab (see the figure below). The server IP address is equal to the IP address of the computer with the **Tracxer** installation. The server listening port is set at 2500 and the receive buffer size is 5000 bytes.

The server automatically starts up together with the **Tracxer** Code Reader Software.



### 11.2 IO Monitor Commands

#### "show layouts"

Displays the possible layouts (eg.):

- "16x24"
- "8x12"
- "6x8"
- "4x6"
- "3x4"

#### "get layout"

Displays the active layout

**"set layout"**

Selects the active layout e.g. "set layout 8x12"

**"scan box"**

Scans the rack and performs the decoding

**"scan tube"**

Performs a single tube scan

**"get scanresult"**

Collects the results of the decode process of the most recent scan event in string format. The string format is determined by the 'Output File' settings (see paragraph 6.4 Output File).

**"read rackid"**

Collects the RackID as string if the "Rack ID Source" option has been configured to scan the rack barcode

**"state"**

Returns the current status of the Tracxer Server:

"idle" - Tracxer is waiting for the next command

"scanning" - Tracxer is busy scanning

"dataready" - Tracxer has completed the scan and the decode data is available

**"help"**

Returns all the implemented commands

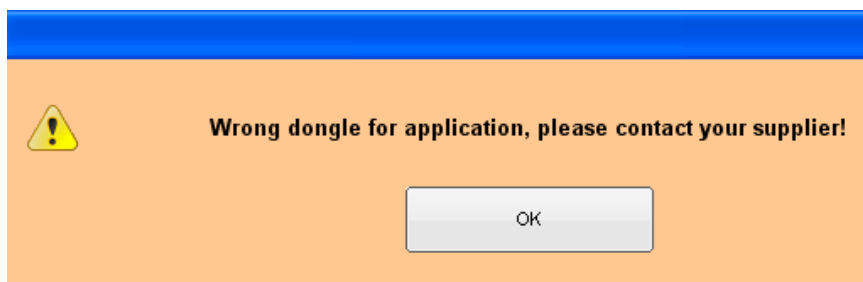
**"close"**

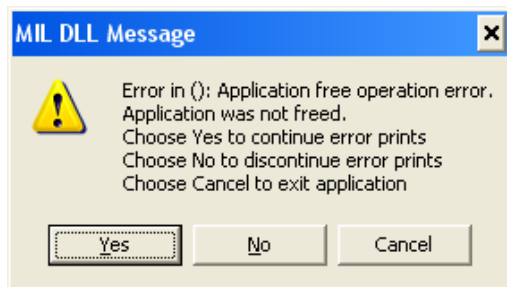
Closes the connection

## 12 ADDITIONAL INFORMATION

### 12.1 Update Security Dongle

Older versions of Dongles might not work with the [Tracxer](#) Code Reader Software. When a Security Dongle is used which is not valid, the following messages will occur.



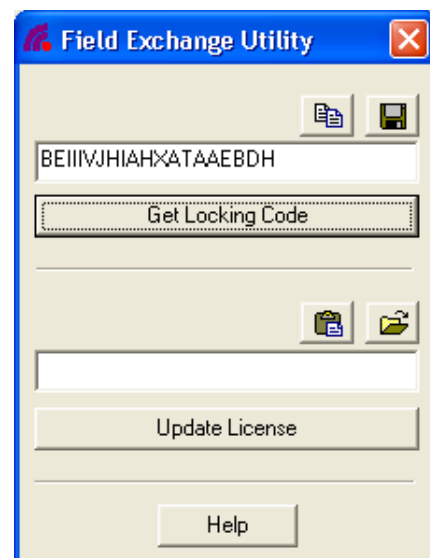


Please contact your reseller for an upgrade.

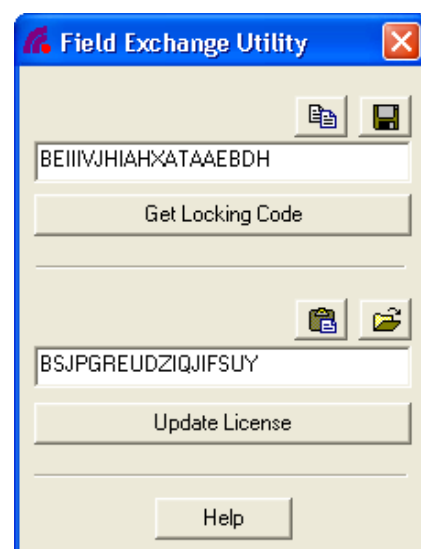
The following procedure can update the security Dongle.

- 1 Open the file FieldExUtil.exe in the folder C:\Program Files\Micronic\Tracxer\

- 2 Press the button Get Locking Code and a text string will appear in the field above the button. Press the "copy to clipboard" or "save to disk" buttons above it to execute the appropriate action.

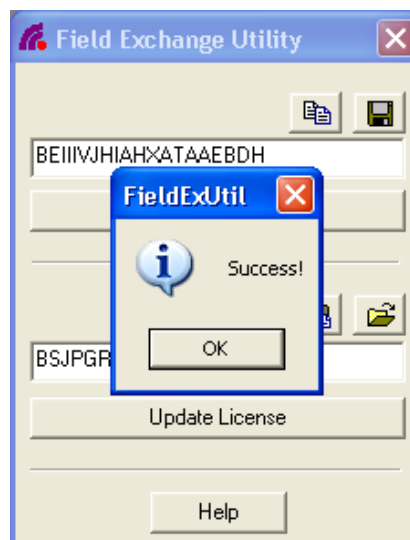


- 3 E-mail this string to your contact at Micronic.
- 4 You will receive an e-mail with a new text string which should be placed in the second field. You can either type it in or use the "paste" or "load from disk" buttons.



- 5 With the new text string in the bottom field press the Update License button.  
If all went right a “success!” message will be displayed.

To avoid problems it is advisable not to manually type in the strings.



## 12.2 Specific Scanner Settings

The first time use can result in a visual wrong placing of the rack-image. A one-time applying of the rack solves this issue (Go to Scanner – Source – Scan – Apply new settings). In case it will not be applied at once, the rack position and scan offset have to be set manually. When you click and hold your mouse inside a cell, a popup will be seen in which you can type the values. See separate document for correct setting. Sometimes the scan area has to be adjusted (blue grid fine tuning). See for more information the ‘Getting started guide’.

In this table the standard settings for different scanners are described.

	Rack Position				Scan Offset		Image Processing	
	X	Y	Width	Height	X	Y	Rotate	Vertical
RS297 - Epson V33 BE	190	150	2540	1700	50.0	11.0	Off	Vertical
RS297 - Epson V33	190	150	2540	1700	45.0	12.0	Off	Vertical
RS297 - Epson V37	190	150	2540	1700	46.0	11.0	Off	Vertical
RS210 - Fujitsu Fi60	190	150	2540	1700	10.0	12.0	Left	Vertical
RS210 - Fujitsu Fi65	190	150	2540	1700	10.0	19.5	Left	Vertical
RD235 - AVA6	190	150	2540	1700	13.5	31.5	Left	Horizontal

## Rack Position:

Position

Offset X  Y

Size X  Y

## Rack Scan Offset &amp; Image Processing

Home Scanner Advanced Log off

General Traxis Datamatrix Single Tube Read Source

Scanner

Source

Rack Scan

X  Y

Scan

Image Processing

Rotate

Mirror

Single Tube Read

X  Y

DX  DY

Scan

## 12.3 Specific BC210 / BC235 (MS-2) Settings

The standard settings for the BC210 / BC25 are also available in the file [Micronic Tracxer MS-2 settings.esp] located at [.:Drivers\Microscan.](#)

Parameters	ESP Values
Communications	
Communications Mode	RS232
RS232	
Baud Rate	9600
Parity	Even
Stop Bits	One
Data Bits	Seven
Host Protocol	Point-to-Point
Keyboard Mapping	English (USA)
Cap Lock Mode	Off
Numeric Key	Alpha Numeric
Preamble	Disabled
Preamble Characters	CR
Postamble	Enabled
Postamble Characters	CR LF

Parameters	ESP Values
<b>Read Cycle</b>	
Number of Symbols	Single
Time Between Identical Decodes	0
Trigger Mode	Serial Data
Serial Trigger	
Character (Delimited)	t
Start Character (Non-Delimited)	0x00 NUL
Stop Character (Non-Delimited)	0x00 NUL
No Decode Timeout	2
Decodes Before Output	0
No Read Message	Enabled
Message	NOREAD
Shutter Speed	Automatic
Beeper	On Good Read

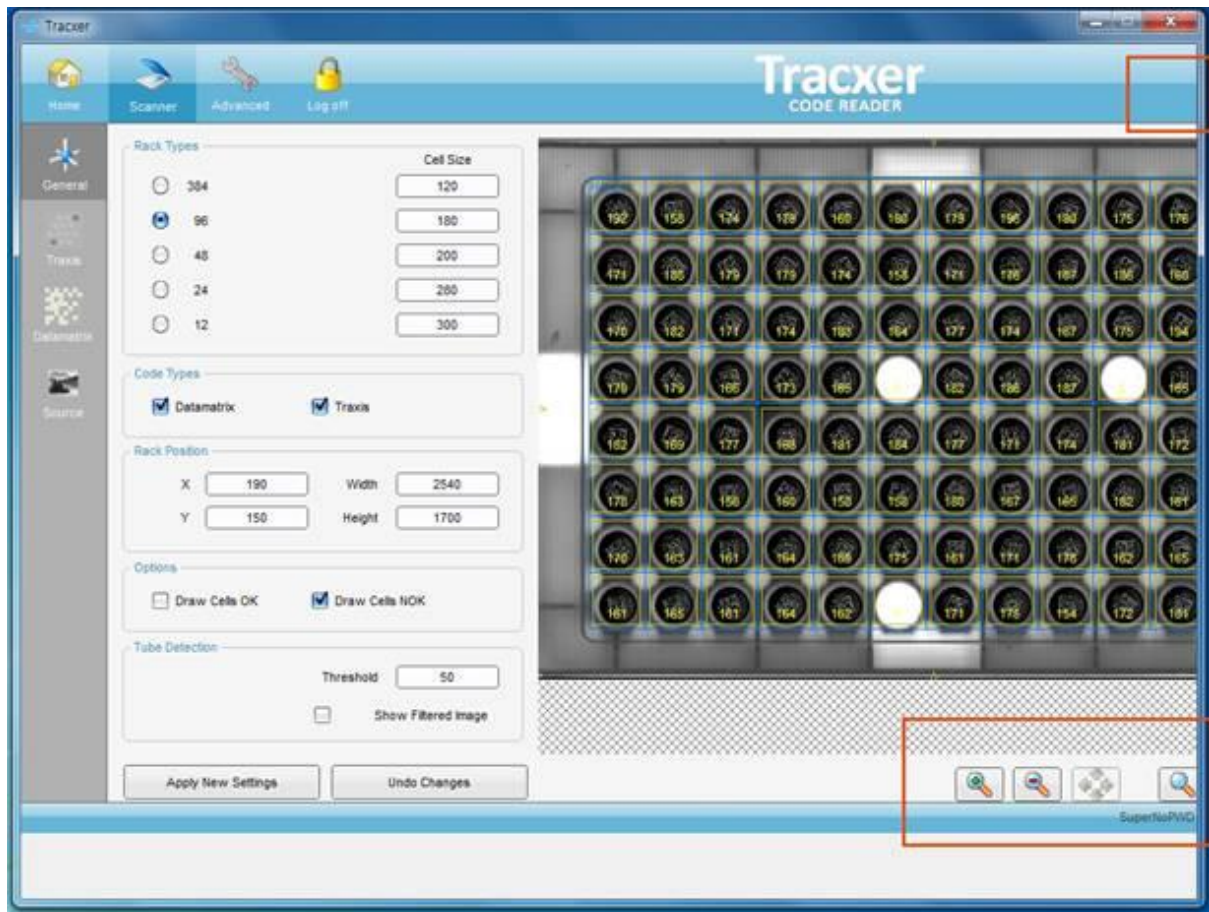
Parameters	ESP Values
<b>Symbologies</b>	
Code 39	Enabled
Code 128/EAN	Enabled
Interleaved 2 of 5	Disabled
Codabar	Disabled
UPC/EAN	
UPC-A Status	Enabled
UPC-E Status	Enabled
EAN-8 Status	Enabled
EAN-13 Status	Enabled
Supplementals	
Output Format	
Code 93	Disabled
Industrial 2 of 5	Disabled
MSI Code	Disabled
Plessey Code	Disabled
DataBar Expanded	Disabled
DataBar Limited	Disabled
DataBar Omnidirectional	Disabled
China Postal Code	Disabled
PDF417	Enabled
Symbology Identifier	Disabled

## 12.4 Display problems Windows 7

Due to the ability of Windows 7, the font size or type can differ from the originally developed font size or type for the **Tracxer** Code Reader Software. This can result in a false representation of the screen.

In this paragraph a general solution will be described. The general solution is:

- No Aero theme
- Ensure the correct font type is installed
- 100% scaling will solve the problem
- Windows XP style DPI Scaling



### Ensure the correct font type is installed

1. Unzip the folder 'FontsA.zip' (which can be found in the **Tracxer** install folder) somewhere on your hard disk.
2. Install the correct font types: serifer.fon, sserife.fon and sserifer.fon. by right clicking on each font type. Click 'Install' (administrative privileges might be asked).

### Change the display size in Windows 7

The DPI setting you set below only affects the current user account that you are logged in, and not all users.

Setting the DPI size to a smaller number or percentage will decrease all items size on the display, while setting the DPI size to a larger number or percentage will increase all items size on the display.



Typically, the higher the dots per inch (DPI), the better the fonts will look. If you set the DPI higher than 96, and you are running a Windows Aero theme, the text and other items on the screen might appear blurry in some programs that are not designed for high-DPI display in this version of Windows. You can avoid this issue by using legacy DPI scaling (Windows XP style DPI scaling) for these programs.

#### OPTION ONE: CHANGE THROUGH DISPLAY SETTINGS

1. Open the **Control Panel (All Items View)**.

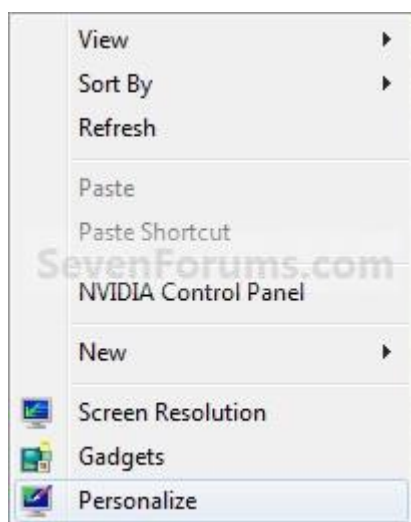
A) Click on the **Display** icon.

B) Go to step 4.

OR

2. Right click on an empty area of your desktop and click on **Personalize**. (See screenshot below)

**NOTE:** The **Windows 7 Starter** and **Home Basic** editions do not have **Personalize** included in them.



A) Towards the bottom left corner, click on the **Display** link. (See screenshot below)



B) Go to step 4.

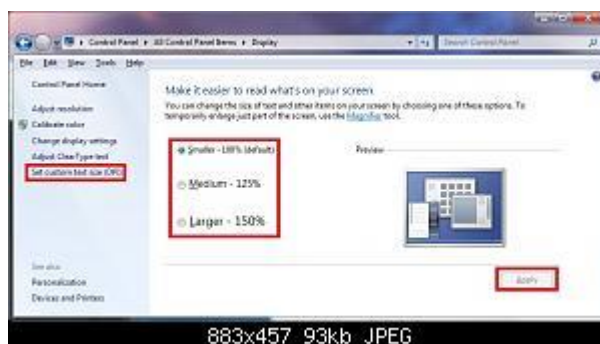
OR

3. Right click on an empty area of your desktop and click on **Screen Resolution**. (See screenshot below step 2)

A) Click on the **Make text and other items larger or smaller** link. (See screenshot below)



4. You will now see this screen. (See screenshot below)



## 5. To Select a DPI Size

A) Dot a size that you want for the Display DPI size. (See screenshot above)

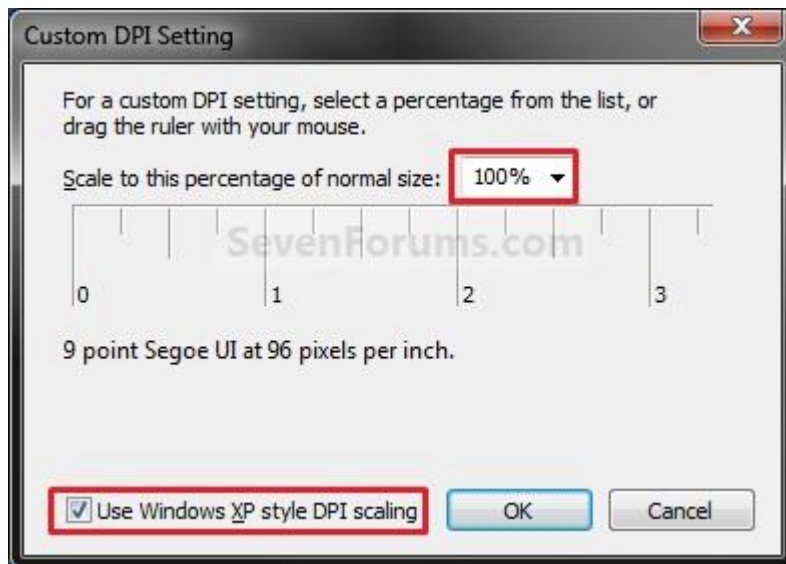
- **Smaller - 100%** = 96 DPI (Pixels/Dots Per Inch)
- **Medium - 125%** = 120 DPI (Pixels/Dots Per Inch)
- **Larger - 150%** = 144 DPI (Pixels/Dots Per Inch)

**Standard 100% is needed.**

B) Go to step 7.

## 6. To Set a Custom DPI Size

- A) In the left pane, click on the **Set custom text size (DPI)** link. (See screenshot below step 4)
- B) To the right of **Scale to this percentage of normal size**, click on the **drop down arrow** and select a percentage you want the DPI size to be. (See screenshot below step 6D)
- C) If needed, check the **Use Windows XP style DPI scaling** box to make text and items clearer in programs that are not designed for higher settings than 96 DPI (100%). (See screenshot below step 6D)
- D) Click on **OK**. (See screenshot below)



7. Click on the **Apply** button. (See screenshot below step 4)

8. Click on the **Log off now** button to apply the DPI changes. (See screenshot below)

**WARNING:** *This will log you off immediately. Be sure to save anything you are working on before you click on this.*



9. Log back on.

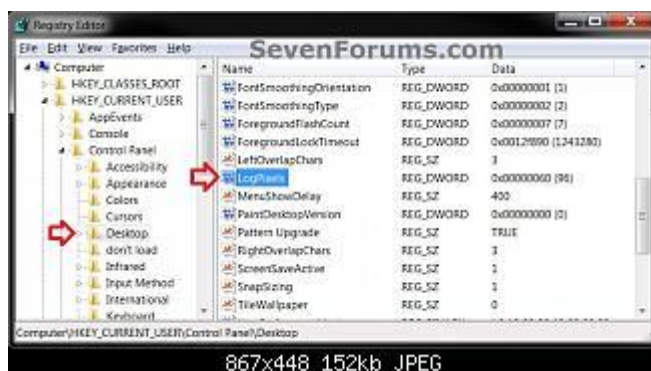
#### OPTION TWO: CHANGE DPI MANUALLY IN REGISTRY EDITOR

1. Open the Start Menu, then type **regedit** in the search box and press enter.

2. If prompted by **UAC**, then click on **Yes**.

3. In regedit, navigate to the location below: (see screenshot below)

**HKEY\_CURRENT\_USER\Control Panel\Desktop**



4. In the right pane of **Desktop**, right click on **LogPixels** and click on **Modify**. (see screenshot above)

**NOTE:** If you do not have the **LogPixels** DWORD value, then right click on a empty space in the right pane of **Desktop**, click on **New** and **DWORD (32-bit) Value**, type **LogPixels**, and press Enter.

5. In the edit/modify window, select (dot) **Decimal**, type in the **registry data value** from the table below for the DPI setting that you want to use, and click on **OK**.

DPI Setting	Registry Data Value
Smaller - 100%	96
Medium - 125%	120
Larger - 150%	144

100% is valid.



6. Close regedit.

7. Log off and log on, or restart the computer to apply.

Source: <http://www.sevenforums.com/tutorials/443-dpi-display-size-settings-change.html> dd. 08-05-2012.

## 12.5 Possible issues by upgrade from version 1.0.0. to 2.0.0.

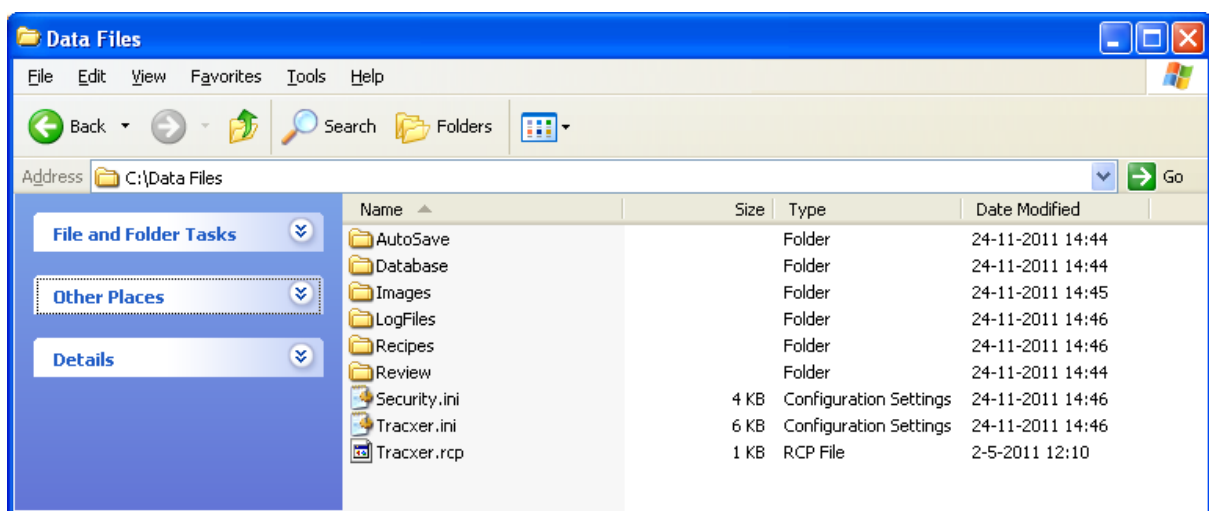
When an upgrade from version 1.0.0. is performed the following may occur:

- Dongle not valid.
- Not able to log in. Reason for this improper use is that not all necessary files are placed in the correct folder.
- Not all necessary folders are posted on the correct location.
- Not all settings are recognized.

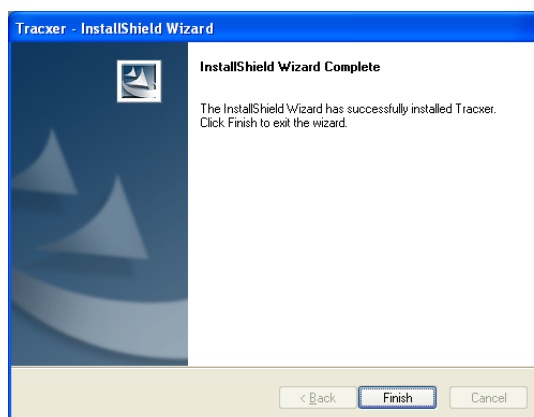
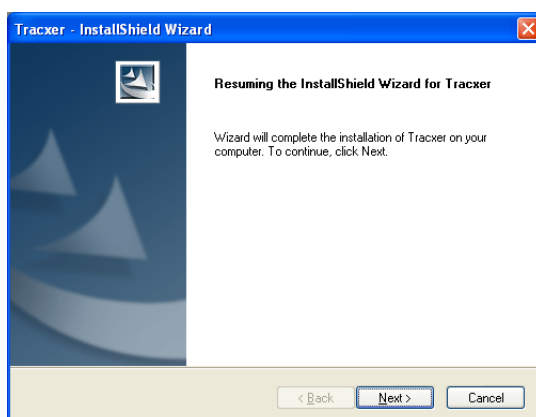
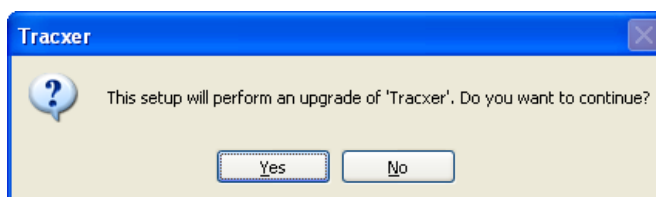
Hereby a short solution to solve this defectiveness. The cause of these failures are different Window versions, Windows-installer problems and Security issues.

During the installation of version A1.0.0. the following folders will be created on the computer:

- 'C:\Program Files (x86)\Micronic\Tracxer' or 'C:\Program Files\Micronic\Tracxer'
- 'C:\Data Files'



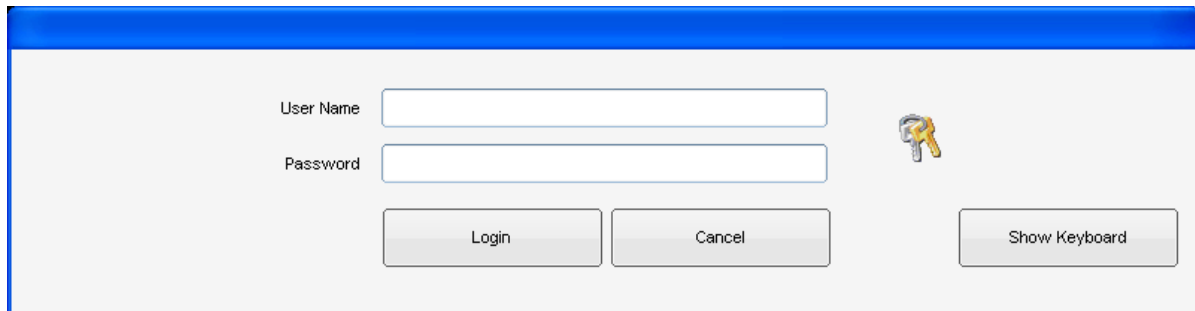
When installing version A2.0.1 the following messages will be seen:



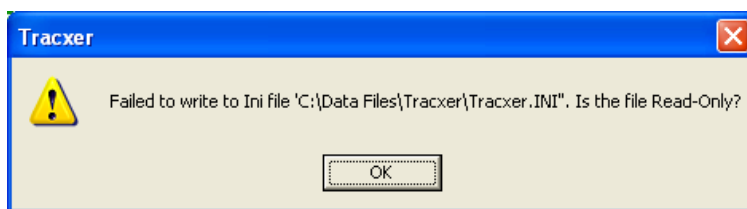
It looks if a normal and correct upgrade is performed. Next steps will show if this is true.

## 12.6 No Username or log-in ability

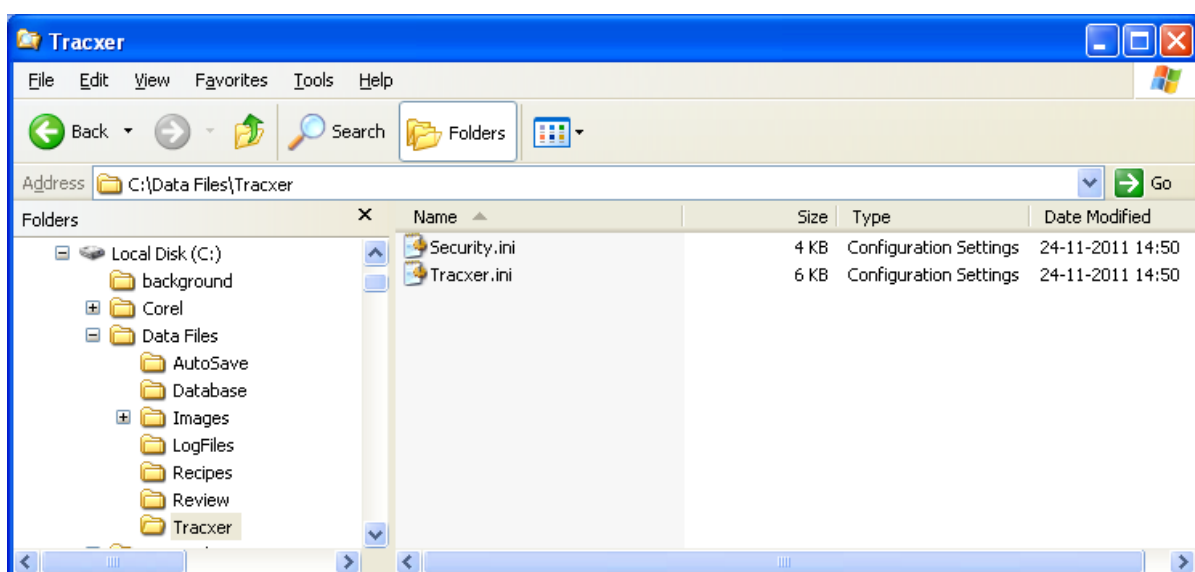
During startup you will need to log in with a User name and Password. Standard User names are 'AdminNoPWD' and 'SuperNoPWD', both without the need of a password. If this will not work the following will/can be seen.



When closing the program you will get the messages that 2 files ,Tracxer.ini and Securit.ini, are failed to write.

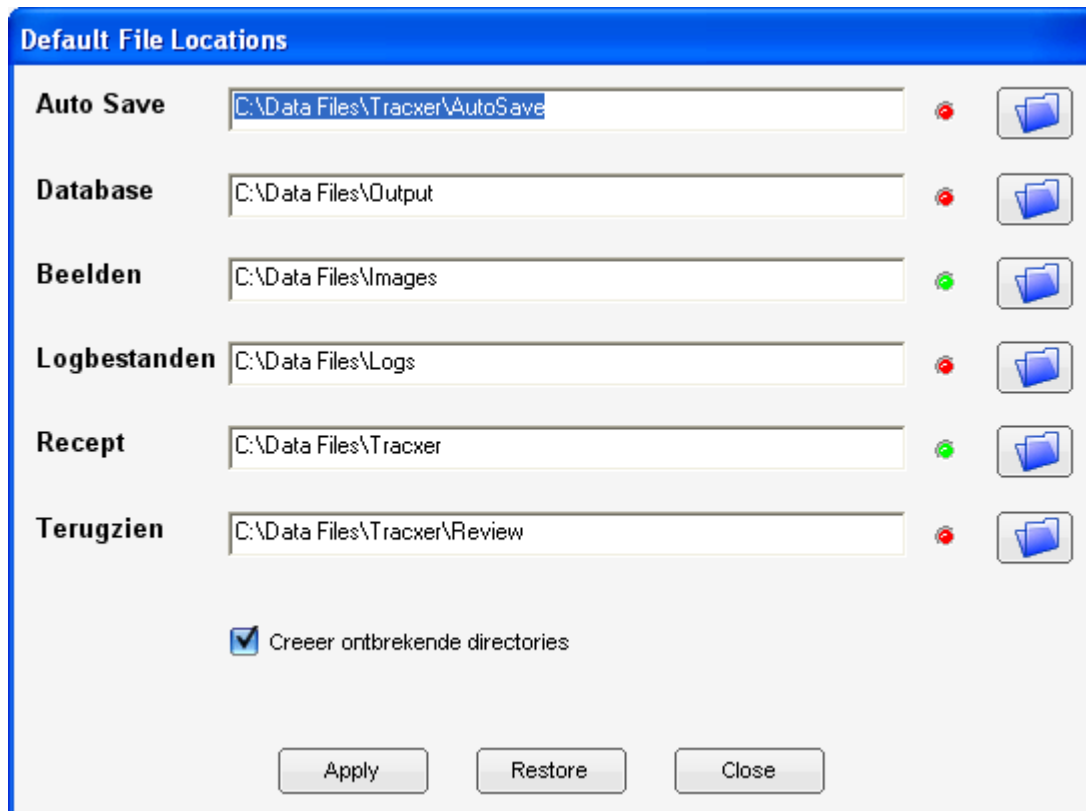
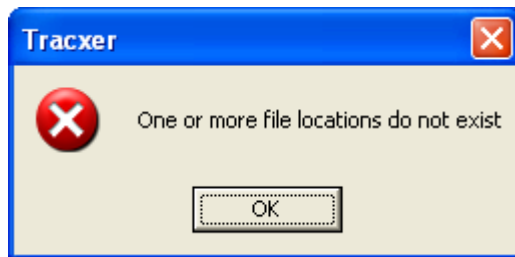


Go the folder C:\Data Files and make a new folder with the name Tracxer. Place in this folder the two files Tracxer.ini and Securit.ini which are originally placed in C:\Data Files.



### 12.7 No Folder/File locations available

During the upgrade potential not all folders are positioned at the correct location. The following message will occur:



Modify and Apply the new folders. Close the screen to continue with the program.